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ORIGINAL ARTICLES.

THE NERVOUS ORIGIN OF CANCER.

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Despite the numerous theories that have been from time to time advanced as to the origin of cancer, many of them apparently proved by the arguments adduced in their support, I firmly believe that cancer is produced by a failure of the trophic centres. The place to seek for the origin of the disease is undoubtedly in the nervous system.

Instead of protoplasm being such from the start the protoplasm so soon as made goes on to the formation of connective tissue or secreting cell and is burnt up and worn out; and every day we make the protoplasm to take the place of the tissues that are destroyed. Twenty years ago I recognized the fact that apparently the most destructible material in the body lasts the longest. That the cells of the *rete malpighii* of the skin keep up a constant sub-division throughout life was something I did not believe. The idea that the epiblast and hypoblast when once separated stayed separated throughout life to me would form a dual existence throughout the body, which I did not believe.

After my graduation in 1877, I went into an investigation of the lymphatic cells, where they come from and how they are made. To my surprise, I did not find a rich sub-division of these cells. In the natural healthy lymphatic gland there is very little sub-division. But I found germination. The granules get larger, and so make a convex surface towards the thread where they lie and the full grown cell develops from this granule and floats off in the lymph stream. That was about 1878 or 1880.

Then I began to study the epithelium, but still with the idea of karyokinesis in my mind. From 1880 to 1886 I had no idea but epithelium was developed in the same way. It is true in studying a horse's foot I saw this germination, but I did not know what it meant. I also saw it in the nail. In 1886 my attention was called to the endometrium, where I found the same condition, applying it to the theory of menstruation. But at the time that was worked out I was convinced the columnar epithelium, or whatever shape pressure may make it before menstruation, came directly from the protoplasm of the lymphatic structure underneath it. In 1887 I undertook the study of the endometrium, and read a paper on the subject before the British Gynecological Society, which showed how the protoplasm of the dog through the cycle of the rut is manifested before the rut comes on and then by a process of absorption the protoplasm of the endometrium is swept away into the lymphatic channels. There also I saw the reproduction from the tissue underneath it.

Then I turned to the turkey feather.

You know when you pull it out it bleeds. As it gets longer the core inside becomes bigger and bigger. Then the prongs of the feather spread out and the core begins to diminish, and just as the moult comes on you can pull the feather out easily. I can remember when a child, if we pulled out the feathers, the pin feathers would bleed and the others would not.

In 1889 I made sections of the core of the turkey feather and found it one immense mass of reticular tissue, and directly from the mass of the protoplasm you can see the columns of the feather built up. First you see the lines running then you can trace a gradual graduation of the new made cells, at a certain point beginning to secrete a cement substance resembling blue; and as you trace it higher, you can see the corpuscles between the columns take more and more the appearance of epithelium.

There my original investigations stopped, from lack of time, until last spring. Then I brought forth my turkey feather again and made vertical and cross sections of it. The bird you know, comes from the reptile, and the feather is nothing but a developed scale. As the creature is developed to an air travelling creature, it has to have a lighter scale, and the scales turn into feathers. They are manufactured as I have described.

Once in every year there is what is called the moult, the absolute shedding of all these epithelial structures and their replacement by new. This usually occurs at the end of the season, when the breeding season is over and the living of the creature is the easiest of the year. And necessarily it must be so, for an immense amount of nutrition is necessary to form the protoplasm of the feathers. Last spring I read a paper before the Chicago Gynecological Society, on this subject of the moult and the analogy between the moult and menstruation. Menstruation is then nothing but a shedding of the superficial layers of the endometrium, just as the feathers of the bird are shed. It is closely associated with sexual selection and reproduction.

It is a curious fact some birds moult twice a year; for instance, our black birds moult early in the fall and some have a second moult in the spring. Darwin refers to the peculiar dress these creatures get on just before the breeding season commences. The most common illustration is the small rice bird with its red epaulettes. These things have a certain bearing on this specialty of ours, because it takes in its scope everything bearing on sexual selection and reproduction..

I have it is literally true the feather, just at the time it falls out, is nothing but mucous tissue. It looks very much like a nerve cell. Then suddenly, when the feather falls out, a new impetus comes on to manufacture new feather and the whole thing springs into the most protoplasmic mass you can imagine. The question is, what is the papilla and what is the endometrium. My answer is that they are only local hypertrophies of the hyaline layer.

I have been also studying the skin. Under a high power I find the hyaline layer is nothing but the same tissue we have in the feather and endometrium, and from it spring minute granules, which keep on growing until finally the true epithelial cells develop. This is very revolutionary, I know, and will probably bring down the thunder of ridicule on my head from everybody who hears me; but it is true.

The best microtome I have been able to find is a freezing microtome, for you don't want to put the tissues through Miller's fluid or anything else. With a freezing microtome you can make the best of sections. When the freezing microtome is used, little bubbles will appear in the sections, but will disappear if the section is allowed to remain a few hours in water. You can then stain in carmine and mount in glycerin and you will have the most perfect section.

In the last ten days I have been studying the liver. My advice is to make a section of liver three-quarters of an inch in every direction and as thin as possible. The interstices within the lobule are filled with reticular tissue.

All this reticular tissue comes from the mesoblast. After the epiblast and the hypoblast have separated, they reunite to form the mesoblast. The mesoblast makes all the motor apparatus of the body and most of the secretory apparatus of the body. I believe the reticular tissue is very close akin to nerve tissue.

It goes right along with the blood vessels. You know how intimate it is with them in the spleen, and it is just the same

everywhere. My belief is the reticular tissue is put in the body to form the protoplasm and from the protoplasm grow the cells. The protoplasm is being grown all the time and is constantly under the control of the nervous system.

There was a very interesting experiment made on the control of the trophic centres, by a German some ten years ago. They put some pieces of periosteum within the jugular veins of chickens. In the course of two weeks they began to kill the chickens at different intervals. At first they found little infarcts of periosteum. Then they found the periosteum going on to the manufacture of bone, the Haversian system almost beginning to show. But at the end of three or four months there was a retrogression, and within a year or so the fragments were all gone. It shows there is a trophic control over even such active substance as periosteum.

Right there I believe we have the key to what I have said, that the cancer and new growths of every description, from clinical proofs, are undoubtedly due to nerve influence. It is true nobody ever saw a nerve in a cancer, nor anything that approached it. There has never been a connection shown. Then further, from what we see of it in gynecology, cancer usually comes in organs whose nerve supply ought to be on the wane. In the ovary the vast majority of cancers originate in the hilum. They arise from the ovarian body which should have been gone long before. At what time do we find it in the uterus? About 45, when the woman ought to be gradually settling down to the life which does not require the uterus. The same with the breast. How do we find it in other organs, in other parts of the body? It is on the site of some long-nagging worrying irritant.

The best illustration I think is the one I have quoted before. Some British surgeon reports a large number of epithelial growths which he cut from the chest and thighs of individuals whose habits in life require them to be skipping around over the glaciers, over the foot hills and mountains of the Himalayas. These individuals have a habit of carrying a pot of charcoal under the dress, and when they are cold they squat down and hold the pot against the abdomen and warm themselves. They say it is impossible to find one of these individuals who has not scars from burns. The British surgeon removed a good many keloids from these scars.

Now, one other proof, for which I am indebted to Prof. Connor. He says he believes the condition is a true neurasthenia, that many times antedates the carcinoma and sarcoma, and he gives as an illustration Grant's case. There was an old man in the last of his life, one of the grandest lives the United States has ever seen, who was certainly overcome by the most overwhelming rascality of a son. Could you get more typical neurasthenia than that? Then there is the case of Emperor William, a man who had been smoking like a fiend since his childhood. Besides, he had the anxiety as to whether he would ever ascend the throne. The final result was a cancer on his tongue. Neurasthenia is undoubtedly an accompaniment of many cases.

From day to day we produce the cells which ought to go on to the production of the natural tissues. If for any reason the nerve control is cut off, the tissue still has power to produce protoplasm which is allowed to run riot and produce new growth. What it means I do not know, but the more I see of it the more sure I am that much we think we know of new growths must be worked over again.

Another thing that I have been thinking of recently is how the spermatozoon, when it comes from nothing but a cell which has been splitting ever since birth, can possibly be so charged with nervous vitality as to produce a new being, unless it comes directly from the parent. The testicle we know is highly endowed with nerves. It has a number of relay cells of its own. It is one of the most nervous organs we have. Where do these nerves terminate? Directly in the reticular tissue. So we can undertsand how the spermatozoa can be charged from the parent. We are able to trace the subject back to something tangible.

It is true we are a great republic, that there are an infinite number of cells within us, but there has been no attempt made to show how the central control exists over each cell and how each cell is made for a specific purpose and after its life is done the individual continues to live.

Just like in our Government, the people make the Government, but still the death of an individual does not greatly affect the whole.

On the point of trauma, in connection with the theory, you can easily see how a nerve connection can be cut. A simple suppuration of the testicle is rarely followed by cancer, unless an old sinus remains and by constant irritation produces the same result as may be produced by the constant nagging of a fever blister on the lip. We all know how dangerous these irritating spots are. We can easily understand how by an infiltration in a part already weakened in vitality the wires may be cut and the tissue left to go at its own sweet will.

I account for the frequency of the stomach as a seat of cancer simply from the constant recurrence of catarrhs of the stomach, a local inflammation which goes on. This is as the result of degeneration changes from pre-existing inflammatory conditions.

There are four distinct and absolutely separate stages of cancer: First, the round-cell infiltration; second, the melting of these cells into immense masses of protoplasm, with a large number of nuclei (megalo-placques). Then follow the softening, breaking down and infiltration. For instance, an old catarrh continues and finally you have a papilloma form, which grows. We all know how frequently carcinoma springs up in a wart. In the laboratory we often see specimens in which there is the change of the wart into carcinoma. The tissue has the power still of cell division and the cells then melt into the myelo-placques or giant cells of sarcoma. There is then an attempt at the formation of epithelium, which results in the cancer nests. The only way you can differentiate a benign adenoma from sarcoma is that the lumen is filled in the carcinoma and is open in the adenoma. The more complete the loss of nervous control, the more malignant the growth is.

Now, as to the early diagnosis. A woman who is very nervous—I would not say hysterical—may be said to be predisposed to cancer. There are true neurasthenics, and in that class of cases a little wart or small irritating spot may be sufficient to cause trouble. If it is a struggle to keep up the nervous connection between the central exchange and some little far-away spot and then the wires are cut, the tissue does as it pleases—just as when the central government of the United States cannot keep control of the Indians, they do as they please.

The best way to consider the nervous system is as a tremendous storage battery, and the nervous symptoms are due to a lack of power in the storage battery. I believe that to be only one of the incidental factors. Take the uterus, for example, and I believe the ganglia in the structure has more to do with keeping it in good condition than those at a distance. When the nerve supply is lowered and then cut off, we have a thing which might start the whole affair.

I would very much like to try transplanting cancer from one patient to another to see if it would take. We know it is impossible to transplant cancer from a diseased individual to a healthy one. Cancer cells put in the external jugular vein will not take, but I believe they would take on another cancerous patient. I have been trying to find some cancerous horses among the veterinarians, but they are very scarce. If I could possibly find two cancerous animals of any kind, I would like very much to try transplanting cancer from one to the other. That I think would test this view. Since Galen's time it has been known that it is impossible to infect healthy persons with cancer.

I firmly believe cancer at the start is only a local affair. I remember an intimate friend of mine who had yellow fever with Bright's disease following it, running him down to the very lowest grade. In one of the convulsions of the Bright's disease he bit his tongue and a wart followed. He was not over 23 years of age. He went to the Professor of Surgery, who cut the wart out. About two years afterward he came to me with the wart looking very suspicious. With the fixation forceps and curved scissors I cut it off deep. I had it examined and the report was sent back that it was cancer. He is to-day an active practitioner. The cancer came on when he was in the lowest physical condition and as he got stronger he got completely over the Bright's disease and was able to manage the whole affair.

So I believe cancer is due to the loss of nerve control over some part. The increased nutrition of a part, following irritation, is but the attempt of nature to guard against the harm that has been done. Then you remember the cicatricial contraction, how the part may be caught and finally cancer follow. We know how often they form in the keloid. I grant that I do not believe the storage battery is the cause of all of them, but I believe it is necessary to the secondary infection where they occur in the lymph spaces, etc. Where it is a local affair, the books tell us there is such a thing as spontaneous disappearance. I have not the slightest doubt many a person has cancer and is cured naturally without its being diagnosticated. Fatty degeneration and absorption of these masses have been described by some of the best authorities.

I do not think this would take place in a gland, for I believe the nervous force is so weakened before the secondary infection occurs that fatty degeneration and absorption will not take place. Otherwise I do not believe the gland would have been infected. When the little masses are lodged in the lymphatic glands the cancer cells would be properly handled normally, and if the lymphatic glands cannot handle it the power must be exceedingly weak.

The nerve supply may be cut off in cicatricial scars. Carcinoma and cirrhosis of the liver are not unheard of friends. Primary carcinoma of the liver frequently has cirrhosis associated with it. There you get the irritation from stones in the ducts. You can easily see how the nerve supply can be cut off by a stone in the duct. There comes one of the clinical proofs of gall-stones being an etiological reason for cancer. Primary carcinoma is a local affair. When the nervous system is thoroughly run down, secondary infection may follow. Here comes the play of neurasthenia, which in the rapid onset of the growth has much to do with it. I have never seen a case in which the neurasthenic element could not be traced.

THE KLONDYKE GOLD FIELDS.

If the Klondike gold-fields had been located under hospitable skies, with easy means of transportation, the rush of eager adventurers would have been unparalleled in history. As matters stand, the exodus of prospectors to Alaska has only been limited by the means of transit. All the steamships regularly sailing from points on the Pacific coast to Alaskan ports have been crowded to their utmost, and various other craft have been chartered to take special parties. Probably eight or ten thousand men in all have been carried as far as the Alaska coast. Most of them are taking the overland route, from Dyea, instead of making the long detour by way of the Yukon River. But the overland road is an exceedingly hard one to travel, and the number of would-be prospectors is vastly in excess of the means for conveying outfits. The consequence is that a great many have made a start on the fearful trail, with little prospect of getting over the Chilcoot Pass to the mining district before winter sets in. It is to be feared that the lack of sufficient supplies may entail serious sufferings. It is a great mistake for any one to start for the Klondyke district—which lies practically on the Arctic—without being well supplied with everything that he will need, especially with money. Juneau, the capital of the Territory of Alaska, will be crowded this winter with disappointed men who must wait until next summer to find the road passable to the Eldorado of their hopes. On the eve of the adjournment of Congress there was created the new office of Surveyor-General of Alaska. Hardly any surveying at all has been done in that vast region. Next spring there will be an enormous rush of American prospectors, and it is believed that the gold-bearing gravel-beds of the streams on the American side of the boundary line may prove to be as rich as those on the Canadian side.—From "The Progress of the World," in *American Monthly Review of Reviews.*

CURRENT LITERATURE CONDENSED.

Physiologic Research.[1]

There are people who entertain exaggerated views regarding the work that is accomplished in physiologic laboratories. There are people who do not object to eating a mutton chop, people who do not even object to shooting a pheasant with the considerable chance that it may be only wounded and may have to die after lingering in pain, unable to obtain its proper nutriment, and yet who consider it something monstrous to introduce under the skin of a guinea pig a little inoculation of some microbe to ascertain its action. Those seem to me to be most inconsistent views.

With regard to all matters in which we are concerned in this world, everything depends on the motive. A murderer may cut a man's throat to kill him; any one of you medical students may have to cut a man's throat to save his life. The father who chastises his son for the sake of the good of his morals is a most humane man; a father who should beat his son for the mere sake of inflicting pain upon him would be an inhuman monster.

And so it is with the necessary experiments upon lower animals. If they were made, as some people seem to assume, for the mere sport of the thing, they would be indeed to be deprecated and decried; but if they are made with the wholly noble object of not only increasing human knowledge, but also diminishing human suffering, then I hold that such investigations are deserving of all praise.

Those little know who lightly speak on these matters how much self-denial is required in the prosecution of such researches when they are conducted, as indeed they always are, so far as I am aware, with the object of establishing new truth. The exercise of a little charity might lead those who speak of us as inhuman to reflect that possibly we may be as humane as themselves.

The profession to which I have the great honor to belong is, I firmly believe, on the average, the most humane of all professions. The medical student may be sometimes a rough diamond; but when he comes to have personal charge of patients, and to have the life and health of a fellow creature depending on his individual care, he becomes a changed man, and from that day forth his life becomes a constant exercise of beneficence. With that beneficence there is associated benevolence; and in that practical way our profession becomes the most benevolent of all. If our detractors knew this, common sense would enable them to see that our profession would not be unanimously in favor of these researches if they were the iniquitous things which they are sometimes represented to be.

I have been interested in the following account of a part of Pasteur's work on rabies: It had been established that the introduction of a portion of the brain of a mad dog under the skin of a healthy animal was liable to cause rabies, and Pasteur had reason to believe that it was principally in the nervous centers that the poison accumulated. He felt a very strong desire to introduce some of the poison into the brain of an animal; but he was a peculiarly humane man. He never could shoot an animal for sport. He was more humane than the great majority of human beings, and for a long time he could not bring himself to make the experiment of trephining an animal's skull and introducing some of the poison of rabies into the brain. He was exceeding desirous of doing it to establish the pathology of the disease, but he shrank from it.

On one occasion, when he was absent from home, one of his assistants did the experiment, and when Pasteur came back he told him that he had done so.

"'Oh!'" said Pasteur, "'the poor creature! His brain has been touched. I am afraid he will be affected with paralysis.'"

The assistant went into a neighboring room and brought in the animal, which was a dog. It came in frisking about and investigating everything in a perfectly

[1] Lord Lister, *British Med. Jour.*

natural manner, and Pasteur was exceedingly pleased, and although he did not like dogs, yet he lavished his affection upon that particular animal and petted it; and from that time forth he felt his scruples need no longer exist.

So soon as our poor selves are directly concerned our objections vanish into thin air; a tiger threatens to invade our camp; who would care much about what kind of trap was set for it, or what suffering the trap caused the animal, so long as it was caught? When the matter affects only the welfare of others, including that of generations yet unborn, the good done does not appeal to the individual and the objector sees only the alleged horrors of modern scientific investigation; of which horrors, however, he quickly loses the sense as soon as he becomes personally concerned.

Hysteria with Strabismus and Ptosis.[1]

Disorders of the oculomotor mechanism are rare in hysteria, though diminution of the visual field, and other phenomena due to fatigue of the retina, are very common.

The patient, a Polish laborer, aged 36 had previously suffered from inflammation in the eyes." He had indulged rather freely in spirits. In August, 1895, he wounded himself in the leg. The wound healed rapidly, but unfortunately he got the idea that, as there had been no suppuration, inflammation would occur elsewhere. After a week, in reality, he got inflammation in the eyes, followed by diplopia and ptosis. This condition lasted a long time without distressing him, but when he found himself unable to see two of his children, who had returned home in September, 1896, he attempted suicide by drowning, and for two days appeared insane.

On admission (September, 1896) there was complete ptosis on both sides; both eyes were turned inwards and downwards. Later, in November, the pupils did not react to light, and the patient professed to see nothing. There was no evidence of any spasm of the orbicularis muscles. There was partial unilateral loss of taste and smell. Tactile sensation was absent over the whole of the body, and there was analgesia in the right arm, left leg, and left half of the trunk, neck and head.

Temporary improvement in the eye symptoms had followed choloroform narcosis in October, but their complete disappearance followed elecetricity and suggestion in November. A temporary partial hysterical deafness was likewise recovered from, and in January, 1897, the patient's condition was practically normal in every respect.

Some of the eye symptoms were evidently due to spasm, namely, the squinting and the myrosis. Charcot in 1888 still believed that all so-called hysterical unilateral palsies of the facial, lingual, and oculomotor muscles were in reality hemispasms. Charcot and his followers had, however, afterwards to modify their views, and in the present case Hitzig attributes the ptosis to hysterical paralysis of the levator muscles of the eyelids.

[1] E. HITZIG, *British Med. Jour.*

Acute Glaucoma Associated with Large Nasal Polypus.[1]

Patient, Mr. M. aged 55, in fairly good health, applied for advice in relation to the vision of his right eye, which had recently become quite dim. There had been attacks of dimness recently but they had subsided, but as these attacks had become more frequent he became alarmed. He had always enjoyed excellent vision and was wearing the ordinary convex glasses suited to his age. Vision in the right eye was 0.2. The pupil was moderately dilated but responded sluggishly to light. Tension was + 1 ?; tension of the left eye was normal. The ophthalmoscope revealed no cupping.

The nasal twang about his voice induced me to examine his nose, and I found in the right side a very large and solid mucous polypus which quite filled its lumen. It was quite impossible for him to breathe through this side. He said this state of affairs had existed for a long time, but as he could breathe through the other side he had paid little or no attention to it.

Eserin was ordered for the right eye and the next day, February 24, 1891, vision was reduced to 0.1. Tension same as yesterday. February 26, eserin has been used for the past two days and V. = 0.3.

[1] S. C. AYRES, in *Am. Jour. of Ophth.*

There is no turbidity of the media. Removal of the nasal polypus was urged on the grounds that it was necessary for healthy respiration and that there might be some indirect connection between the glaucoma and the pressure in the nasal cavity. This was done at once and the next day the eye was decidedly improved. Vision was 0.7, and tension was normal. February 28, V.=0.8. The glaucomatous symptoms seemed to disappear as soon as the polypus was removed and his eye promptly regained normal vision.

Two or three years later he was a client of mine for conjunctivitis, but there was no return of the increased tension or of the spells of dimness which he had prior to the operation. Was this a reflex irritation?

The Treatment of the Dying.[4]

The author says he knows of nothing in our attendance on the dying more gratifying than to witness the improvement in face, feature and expression that marks the kindly action of opium under these circumstances (the feeling of exhaustion and sinking referred to the stomach and heart in the dying). In an hour or thereabouts after it has been taken, some color returns to the face, the features lose somewhat of their sharpness, a placid expression replaces the look of anxiety, and the sufferer passes into an easy, gentle sleep, from which he awakes refreshed and comforted, and helped, as it would seem, to die more easily when his time arrives.

Hufeland, writing at the end of a long professional life, did not hesitate to declare that opium is not only capable of taking away the pangs of death, but it imparts even courage and energy for dying. It must be administered in such doses as will appease suffering and disorder, and in this respect we are to be governed solely by the effect and relief afforded. The dose for an adult should be rarely less than a grain, but oftener more. The effects of opium continue for about eight hours, and if its action is to be maintained it should be repeated at intervals of that duration or somewhat less. It should be given in liquid form, as the tincture or the liquid extract, or as morphin, of which the solution of the bimeconate is best.

So long as the air passages are not obstructed by secretion, so long as there is no lividity or even duskiness of the face, opium, if indicated, may be given in aid of the euthanasia, but if they are present it is hazardous and might hasten death. Much care, too, is needed in the employment of opium in cases where the heart is greatly enfeebled, and where the conditions directly or indirectly induced by opiates, especially that of sleep, may be just enough to turn the balance against it. A contracted pupil is also a contra-indication to opium. It implies a state of the brain which opium is likely to increase rather than relieve. And if food has been injudiciously pressed upon the patient so that the stomach is distended with it, and the epigastrium is full and tense, opium given by the mouth is rarely found to act kindly if at all. If, under such circumstances, the influence of opium is needed, we should resort to the hypodermic injection of morphin.

[4] MUNK, *Practitioner.*

Iodin Incompatibility.[5]

The following prescription is taken from a medical journal of large circulation:

To Prevent Iodism.—It is claimed that the following may be given indefinitely without causing iodism:

Potassium iodid.....	12 drachms.
Ammonium and iron citrate	2 drachms.
Tincture nux vomica .	2 drachms.
Water	12 drachms.
Compound tincture cinchona	16 drachms.

Teaspoonful three times daily, in water, after meals.

The title indicates a purpose of giving iodid of potash, and directions, a teaspoonful after meals in a little water; no other injunctions.

Most people eat more or less of starch foods at every meal. The iodid coming in contact with the starch, forms an iodid of starch, which every tyro in medicine should know is an inert substance. Hence,

[5] EDITORIAL in Cincinnati *Lancet Clinic.*

iodism never can take place, even when given indefinitely; neither can there be any therapeutic results from its being given. The remainder of the prescription might in a given case have some tonic effect, but the iodin—not.

The right way to give iodin for its therapeutic effects is to dissolve the iodid of potash or of soda in an equal weight of distilled water. Approximately, a minim or drop of the saturated solution is equivalent to a grain of the salt. Direct the number of drops of the desired dose, given in a spoonful of water. Before swallowing the medicine the patient should swallow a small glass of water, and at once after the medicine a goblet of water; the more water taken the better, but never a less quantity than above indicated.

Another direction should be that the medicine be taken every four hours, and never close to any meal. The purpose of this is to avoid a contact of the iodin with stomach contents; and yet in this there will usually be some failure, but the writer believes that without special change of diet a patient treated in this manner will obtain the benefit of about three out of the four daily doses prescribed.

Furthermore, if the patient drinks a large amount of water at the time of taking the iodid the quantity can be increased to as much as a drachm at a dose without producing iodism. This is an inordinate amount, and should be accompanied by a very large amount of water. Iodid of potash or of soda given in this way may be continued for almost any length of time, but always under observation, lest untoward effects be produced.

The points in administration are to avoid contact of starch food in the stomach and the giving in large amounts of water as described.

After giving the iodid it is but a very few minutes until the iodine may be detected in the urine, and in the secretion of the salivary glands. Because of its effects upon the salivary and buccal glands it is one of the best remedies for those who wish to stop using tobacco.

Always begin the administration of iodid of potash with small doses, increasing the amount from day to day until expected results are obtained.

There is scarcely a remedy in the materia medica that is more generally useful than iodid of potash.

The Technique of Vaginal Section, Irrespective of Hysterectomy, for Diseased Appendages and Small Pelvic Tumors.[6]

Anything that will lessen the shock in operations, reduce the mortality, and shorten convalescence is a decided advance in our methods, which is true of vaginal section when done under proper indications. But it is an error to think that vaginal section will supersede abdominal section. Both have their natural limitations based upon,

1. The ease with which the operation may be completed.
2. The complications which may develop as the operation proceeds.
3. The danger which the operation incurs.
4. The immediate as well as the remote results including the necessity for drainage.

The advantages of vaginal section are stated as follows:

1. The patient will more readily consent to a vaginal section, hence hopelessly diseased organs may be removed earlier and the mortality is thereby lessened and her suffering relieved earlier.
2. The surgeon would not hesitate to advise vaginal section in conditions which do not seem to present sufficient gravity to warrant the risk of abdominal section.
3. Where exploration of the pelvis is necessary to clear up the diagnosis where the diseased condition is not extensive and where the adhesions are not dense or numerous.
4. When subsequent drainage is certain to be required it is more perfectly secured through a vaginal incision.

The operation is applicable in the following conditions:

1. For small pelvic tumors which are or seem to be solid in part or entirely so.
2. In ovarian cysts of considerable size, since the fluid can be evacuated and the sac withdrawn through a small vaginal incision.
3. For pyosalpinx, hydrosalpinx and hematosalpinx.

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[6] American Medical Association, Section on Gynecology, Dr. Augustin H. Goelet, of New York.

4. For cystic or otherwise enlarged and diseased ovaries.

5. For the removal of small subperitoneal fibroids by myomectomy.

6. For drainage of pus accumulations situated low down in the pelvis.

7. For hematoma and hematocele, including ectopic gestation.

8. For pelvic exudations which resist other means for their removal. He has had excellent results from persistent faradization in these last named conditions, hence he believes that surgical interference is seldom required where suppuration has not occurred.

The technique of the operation is described in detail and very concisely.

In conclusion the author states that complete union of the vaginal incision usually takes place in from six to eight days, even when the gauze drain is employed, and the patient may be gotten out of bed at the end of two weeks. It is, he says, the exception when any rise of temperature follows this form of vaginal section, and convalescence is, as a rule, rapid and uneventful.

Osteomata of the Auditory Canal and their Treatment.[7]

The writer states that the osseous obstructions of the auditory canal are usually formed of impacted tissue of ivory consistency, and are difficult to remove with cutting instruments. It is better to remove them wih a gouge than to try to reduce them with the drill, or by the numerous methods generally recommended by authors.

The radical and complete eradication is as important here as in the osseous tumors of the nasal fossa and of the face. The author relates two cases in reference to men 45 and 50 years old, who had osteoma of the canal, and at the same time suppurative otitis media. The skin was incised and a gouge passed through this opening and pushed in until the tumor was loosened and detached. If the osteoma is very near to the tympanum, it is more prudent to free the pavilion and the cartilaginous canal before attempting the operation of the tumor.

[7] E. J. Moure, M.D. (*Rev. Hebd. de Laryng.*), *The Laryngoscope.*

The Aseptic Treatment of Retention.[8]

The head of the penis and the urethra are the habitat of several varieties of micro-organisms, some of them capable of producing pathologic effects when carried into the bladder or when invading the periurethral issues through a trifling wound. While a healthy bladder has a certain power of resistance which may enable it to cope successfully with an infection of moderate intensitv, quite the reverse is true of one habitually distended such as may be encountered in cases of enlarged prostate. The deposit of micro-organisms in a bladder impaired from whatever cause, may prove the starting-point of aseptic process which terminates only with the death of the sufferer.

Simple urethral fever, prostatitis, epididymitis, ureteritis, pyelonephritis, and pyemia are probably only varied manifestations of the same group of bacterial poisons. It is therefore a matter of the greatest importance that the use of instruments in the urethra and bladder should be accompanied with the most careful antiseptic and aseptic measures. It must be admitted that no germicide, no aseptic method, will accomplish the result desired, namely, complete removal of pathogenic organisms from the field of operation. But, though perfection is impossible under existing conditions, it should be our aim, and fewer disasters will follow the use of the catheter.

When the physician is about to empty the bladder by instrument, he should have in mind a certain definite routine to be followed, the object of which is threefold:

1. Sterilization of penis and uretha of the patient.

2. Sterilization of instruments and hands of physician.

3. Maintenance of the sterile condition until the operation is finished.

Sterilization implies both cleanliness or asepsis, and antisepsis by the use of germicides, the former being probably the more important and essential of the two.

One principle, a sine-qua-non to success, must be kept constantly in view. No object when once sterilized shall be al-

[8] Charles S. Hamilton, M.D., in *Cleveland Journal of Medicine.*

lowed to come in contact with any unsterilized object.

If such contact does occur, immediate resterilization is necessary. It is with reference to this point more than any other that we fail in carrying out the details of a perfect aseptic technic. For example: our precautions are in vain if we lay a sterilized catheter on the bed or table, until ready to use it: or, if with well-cleaned hands we draw back the cork from a soiled bottle and proceed at once to the handling of sterilized articles. It would be well for all of us to remember that cleanliness in dealing with the bladder is just as imperative as in the lying-in chamber, for the possibility of infection is quite as great, though fatal results may not be so frequent. That which has been said applies quite as strongly to the hands of the operator as to the instruments used.

The following might serve as a description of one method of aseptic catheterization, the steps being, of course, subject to variation to suit circumstances. The necessary articles are:

1. Scrubbing brush.
2. Catheter (rubber, woven, metallic, glass).
3. Lubricant. Boroglycerid in glass-stoppered bottle, or vaselin, sterilized in tin tubes, such as are used for artists' colors.
4. A small glass syringe.
5. Towel, basin and dish.
6. Bichlorid of mercury or carbolic acid.

Let some member of the family scrub thoroughly and rinse repeatedly a granite ware basin and a vegetable dish holding one pint or more. I assume that these two articles or their equivalent can be found in any household. Put in the basin one pint of water from the kettle and a teaspoonful of carbonate of soda. Boil in this solution for five minutes the catheters, and an ordinary glass syringe, both having been cleaned before placing in the soda solution. Mix ordinary weak carbolic or bichlorid solution in the vegetable dish (after scrubbing it thoroughly outside and inside), using by preference water from the kettle.

Now the physician should scrub his own hands, being sure as to the condition of his finger-nails; rinse them well and dip in the antiseptic solution. Put to soak in the solution a small, clean towel. The penis is now to be thoroughly cleaned by scrubbing and rinsing, devoting particular care to the meatus. Lay the antiseptic towel over thighs and abdomen in such manner as to leave the penis exposed. If there be some urethral discharge, wash the anterior uretha repeatedly with the syringe and antiseptic solution. Take the catheter from the basin in which it was boiled and lubricate it with boroglycerid, poured on it from a bottle in the hands of an assistant or a member of the family, and introduce it.

After use of the catheter scrub and rinse it and inject antiseptic solution through it. Put it away in a clean towel, or boil it again and put it away in carbolic solution, in which case it is ready for future use at once.

Residual Gonorrhea.[9]

In progressed gonorrhea, where the infection has long since been extinguished, there is left in the tissues numerous characteristics, even specific signs, which the author terms residual. These residual signs may affect the vulva, uretha, vagina, uterus, adnexia, pelvic peritoneum, the parametrium, and rectum. The *vulva* as *vulvitis maculosa persistens*—an affection of the mucous membrane of the vestibule around the duct openings of the glands of Bartholini. As a glandular adenitis of the glands of Bartholini, the glands being felt on one or both sides as hard nodules, the size of a pea or hazel-nut, as a round or oval, shallow, clearly circumscribed ulcer, which is exterior and inferior to the duct-opening which he believes is a result of abscess of the gland rupturing after necrosis of the mucous membrane. Or a cyst of Bartholini's gland, which is the most frequent residual sign in the vulva.

The *urethra* as a *urethritis maculosa externa persistens*—the formerly described, sharp, limited, dark-red spots or rings of the external meatus. As various forms of chronic urethritis, analogous to those of the male urethra described by Oberlander. As structures, which are the most common cause of vesical and urethal tenesmus where the urine is normal. As chronic peri-urethritis in the form of a ridge the thickness of the ring-finger.

[9] SANGER, *Annals of Gyn. and Ped.*

The *vagina* as *colpitis maculosa persistens.* The mucous membrane of the vagina and vaginal portion of the cervix, especially those parts which have few folds, show dark-red spots similar to the maculae of the vulva. As *colpitis granularis persistens,* described as vaginitis papulosa. The granules or nodules are smaller and harder than those of acute granular colpitis of pregnant women. He believes also that certain cases of *colpitis atrophicans obliterans* and *colpitis senilis hemorrhagica* certainly depend on gonorrhea originally; also many cases of pruritis vulvae.

The *uterus* may be involved as *endometritis* and *metro-endometritis chronica post-gonorrheica.* He says in cases in which considerable time has elapsed since gonorrheal infection and repeated examinations of uterine secretions has failed to show gonococci, even where the discharge is quite purulent, and those in which it has been artificially increased, it is permissible to assume that we have to deal with a residual form of gonorrhea. As a perimetritis chronica post-gonorrheica this affection in a pure form, not as a part of a pelvo-peritonitis diffusa, is rare except as a gonorrheal affection.

The *adneza uteri* and *pelvic peritoneum.* It appears as salpingitis, perisalpingitis, oöphoritis, perioöphoritis, and pelvo-peritonitis chronica residualis.

The *pelvic cellular tissue*—the parametrium. Here it cannot be decided whether it is gonorrheal in origin until gonococci are found in the acute exudate.

The *rectum.* Strictures of the rectum, he says, are obscure in etiology, but are to be regarded as largely gonorrheal.

Psychical Hermaphroditism.[10]

Distorted generic instincts play such an important role in the study of that class of people known as "neurotics," and are little understood by the general practitioner. When this psychical condition is studied by the light of history we can congratulate ourselves that this vice, and often disease, is no longer a factor that can be admitted as a part of the nation's foibles or practices, or that it has any role in the life of the normal human being. Nevertheless sexual perversion exists today to a much greater extent than the general practitioner realizes. A proper understanding of this abnormal condition is of great scientific importance and medico-legal interest.

In considering this class a line must be drawn between the vicious, morally depraved, the male prostitute or any of that class which comes under police surveillance, and the unfortunate psychical pervert. It is certain that in sexual perversion we have to deal with well-defined pathologic phenomena occurring under conditions that vary only in circumstances and environments, which have always existed in all countries and at all periods. Natural laws govern all the phenomena, from the first appearance of sexual life, through its various phases to decadence.

Dr. Howard differentiates between perversion, which is meant to include all abnormal sexual desires, and inversion is strictly applied to designate the love of one sex for another of the same sex, and says the invert and the pervert are to be found among the esthetic class. A marked feature of this anomaly is the precocity of the sexual instinct. Ninety per cent. of these abnormal individuals are engaged in artistic pursuits. They are found among the painters, musicians, poets, and writers of erotic fulmination. Among Havelock Elllis' thirty-three cases, two were physicians. Female perverts depart to a greater degree from the normal than do male. There are more female perverts than inverts.

The practitioner, while he may have these cases of true sexual perversion in his office to be treated for some extraneous trouble, will not often be made the confidant of the pervert. The individuals are secretive, reserved, and obmutescent. As they recognize the fact that unless understood they will be avoided, shunned with disgust, and finally met with social degringolade, it is not strange that their abnormality is seldom recognized except by those of similar psychical desires, and by the specialists with whom they are pitiably frank, honest, and hopefully confident.

The genital organs of the pervert are almost without exception normal in appearance and function. The condition of these individuals is a decided psychical

[10] WILLIAM LEE HOWARD, M.D., in the *Alienist and Neurologist.*

morbid entity. Some of them do not realize that their passions, desires, and thoughts are abnormal. It is not easy to appreciate the role that external impressions and accidental environments have played in the individual development of these cases. Dr. Howard does not believe that true inversion is ever an acquired condition; it is congenital.

There is very little to be said regarding the treatment of the true sexual pervert. Drug medication in these cases is absolutely useless. Suggestion (with and without hypnosis), avoidance of surroundings which are apt to produce emotional feelings, such as music, art galleries or the theatres, and substantial and nourishing diet include all that can be done; and this only with the idea of keeping them free from vicious habits, and placing them in a condition of mental equilibrium, although they still remain psychically inverted.

Desquamative Erythrodermia due to the Use of Cacodylic Acid in the Treatment of Psoriasis.[11]

Two patients were presented who had been treated with sodium cacodylate in large doses for psoriasis. During the course of the treatment a generalized erythema had appeared and been followed by desquamation of the skin in large flaps.

The first patient was an old man with persistent psoriasis, and he had gradually reached the amount of eight grains a day. One morning he had been found in a grave condition, with prostration, fever, anorexia, oliguria, and a red tumefaction over the entire surface of the body. On the following days, after the cessation of the treatment, the general condition had become ameliorated, and the skin had fallen in large, thick patches.

The second patient was much younger and had a form of psoriasis that was extremely susceptible to various therapeutic agents, and the skin had become red and irritated on the prolonged application of even a slightly active local agent. The eruption consisted of large, red, confluent papules in patches, generalized, but more apparent on the hands, the feet, and the face. In this case the amount of cacodyylic acid had not exceeded eight grains a day. The desquamation in large flaps resembled that of scarlatina.

The tolerance of cacodylic acid in large doses, the authors said, was not so general as had been thought at first; the drug might cause, in patients predisposed to them, symptoms similar to those caused by other preparations of arsenic.

M. Daulos stated that he had given much larger doses with varying results. In one case, he said. a veritable eczema had resulted. He had suspended the treatment and the symptoms had ceased, only to return, however, when the use of the drug was resumed.

[11] Balzer and Griffon (*Gaz. Heb. de Med. et Chir.*), *N. Y. Med. Jour.*

Hand Disinfection.[12]

The following method of hand disinfection has well stood the test of time clinically, and has proved itself by repeated culture tests to be among the most reliable of agents for this purpose:

After a thorough scrubbing with hot running water, green soap and a brush, aiding the cleansing under and about the nails with a pointed brush, like the end of rattan or soft wood, about a scant tablespoonful—i. e., a large pinch of the ordinary commercial chloride of lime or bleaching powder is put in the palm of the hand, and on it is placed a crystal of the carbonate of sodium (common washing soda) about one inch wide and one-half inch thick, or of a size that will permit it to be easily rubbed about like soap.

A little water is now added, to make a thick cream, and this is rubbed up and down the palm and arms, until the little rough grains of the chloride of lime disappear or markedly diminish, or until the creamy fluid thickens into a pasty layer.

Another ready way to determine when to cease using the soda, is to cast it aside when a sense of coolness is felt in the palms, for when the cream is first made a sensation of heat is noticed. The procedure occupies from three to five minutes.

Before washing the paste off in sterile water, I prefer to use a sterilized rattan cleaner to rub it under and around the nails. When finally cleansed in the sterile water, the hands will be found smooth

[12] R. F. Weir, *Medical Record.*

and soft and smelling of chlorine. If the odor persists after the operation, neutralization can be had, or before this if any reason exists, by a (sterile) weak one-fifth per cent. solution of aqua ammonia. There is seldom any irritation of the skin following this chlorine asepsis. Should such occur, bathing the parts (after the operation) with water and anointing with non-petrolic oil will at once remove it. Depending somewhat on the sensitiveness or thickness of the skin, the procedure can be employed, if required, three or four times a day, without marked irritation.

The Treatment of Fractures.[13]

1. Unless a fragment is threatening to break through the skin, the fracture should never be reduced except by a physician, and then only when apparatus is at hand to keep the parts in permanent apposition.

2. Men carrying an injured person should not keep step, as the jar to the wounded part is much greater.

3. Strychnia for shock, morphia for pain, but *no alcohol.*

4. Always give anesthetics for reduction of a simple fracture. It is better and easier to reduce and set compound fractures without anesthesia.

5. It is very rarely necessary to make a patient go through the double agony of "temporary" and "permanent" setting of the broken bones.

6. In simple fracture gentle rubbing of the ends will assist in getting rid of shreds of tissue which invariably are caught there.

7. Nowadays a surgeon will rarely be satisfied that a bone is properly set, until verified by the X-rays.

8. Plastic splints, preferably plaster of Paris, are surely the best apparatus when they can be applied.

9. Ambulant treatment is coming more into vogue. No simple fractures require constant confinement to bed, except of the innominata and upper third of the femur.

10. It is not necessary and sometimes very harmful to "wait for swelling to disappear" before putting on a permanent dressing.

11. A well applied splint with good apposition of fragments should not be removed too early. It is not necessary to apply massage early in ordinary cases.

12. Proper time for massage is two or three weeks after fracture of upper extremities and four or five weeks for lower extremities—if the bones are slow to unite firmly.

[13] W. I. Estes, *International Journal of Surgery.*

Aortic Aneurysm.[14]

Two points in this disease are emphasized of recent years:

1. The comparative frequent latency of aortic aneurysm, the disease then giving rise to very few or indefinite symptoms. A paralysis of the left vocal cord may constitute the first means of recognizing the aneurysm. Auscultation of the upper part of the left interscapular space may reveal an arterio-diastolic murmur not heard elsewhere, or there may be here or in the neighborhood, a systolic murmur due to the beating of the aneurysmal sac on the left bronchus.

2. The relation of syphilis to aneurysm. Gerhardt refers to M. Schmidt's cases where recovery followed antisyphilitic treatment. In 25 cases of aneurysm in the author's clinic there was past syphilis in 9 out of the 17 men. Of other causes traumatism was present in 5, alcohol in 2, overexertion in 3, and anxiety and care in 1. In 8 cases there had been previous rheumatic manifestations. Opposite the third and fourth thoracic vertebrae the large air passages, arteries, and the esophagus cross. These structures are exposed here to various movements, including the movement downward of the bronchi owing to the descent of the diaphragm. Here a portion of the aortic aneurysms occur. Syphilitic disease of the air passages is chiefly situated here. Sometimes aortic aneurysm and tracheo-bronchostenosis occur together.

The author also refers to the frequency with which valvular disease, and especially aortic regurgitation, complicates locomotor ataxia, itself very often a parasyphilitic disease. A predisposing role must be allowed to syphilis in the causation of aneurysm. It has yet to be shown when the treatment by iodides should be supplemented by mercurial inunction.

[14] Gerhardt (*Deut. Med. Woch.*), *Brit. Med. Jour.*

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PHILADELPHIA, SATURDAY, SEPTEMBER 4, 1897.

EDITORIAL.

THE GRAND ARMY REUNION AT BUFFALO.

The thirty-first annual reunion of the Grand Army of the Republic at Buffalo, was an event of so much general interest that it deserves more than passing mention even in a professional journal. There is much of special interest to the medical profession in the conduct of so great an assemblage of people, but no apology is necessary for alluding to some topics remote from technical medicine.

One of the strange facts of human life suggested by such a gathering is the short time which separates youth from old age. Not only is this true historically, but personally. Most of us are made to realize that we have scarcely time to form the habit appropriate to one period of life, before we find that we have outgrown it. In the medical profession a praiseworthy feeling of equality without regard to age, has gradually developed within the memory of many present practitioners. Yet, too often, we find men taking advantage of being on the narrow bridge of middle life, to assume a superiority over those who have yet to reach it, while they fail in consideration to those already showing the infirmities of age.

Fifty thousand veterans attended the reunion. In spite of the fact that the average age must have been nearly sixty years, no one could look upon them in procession without noticing their soldierly bearing, the surprising lack of senility that most of them showed, or without feeling a sense of security, in the event of war, from the moral support, the practical experience, and even the possibilities of actual fighting service, of the Grand Army of the Republic.

It is difficult at the present time to realize the serious possibility of war, either civil or foreign, for the United States. We have become more conservative, less emotional and pugnacious. We are not actually cowardly or unpatriotic, but we have become used to considering matters from a selfish standpoint, and to

counting the cost before entering into any serious transaction. Then, too, it is difficult to imagine an issue which could arouse a hostile spirit between different sections of the Union, or between the United States as a whole and some foreign country, which would not be merely a business matter, as, for example, was the political conflict of last fall.

Considerable patriotic and hospitable feeling was manifested by the citizens of Buffalo, in honor of the G. A. R. Aside from the customary "welcomes" of saloons, restaurants, etc., many business houses, newspaper buildings and residences were elaborately decorated. There were several arches, one or two of ridiculously flimsy construction, but one, which recalled the World's Fair decorations, was really artistic. The most beautiful decoration was the "Living Shield," the stripes and blue field being secured by the colored garments of a well-drilled chorus of some 2000 children. Buffalo is not an emotional city; it has too large a foreign population and too few spots of historic interest to foster a demonstrative patriotism, but the procession of veterans and the songs of the children aroused a depth of feeling that would have done credit to a people far less self-contained.

One of the smaller parks of the city was arranged as a tenting ground for the veterans who, without regard to financial considerations, might wish to again experience the pleasures of camp life. About thirteen thousand were thus accommodated. There was also a small camp downtown, a passenger steamer was placed at the disposal of the naval veterans, and about forty of the public school buildings were converted into headquarters for various posts. At the large camp, water-pipes were run through every street, and efficient bureaus for police, fire, water and hospital service were established. Long paper-covered structures were erected for closets and wash-rooms, the excreta being received in boxes lined with tarred paper and discharging into sewers. As the boxes were liberally flushed with water, no nuisance existed.

The "water-closet" system of voting has been in vogue in the cities of New York for several years. It now was made to serve a useful purpose for honest citizens, by converting the booths into genuine water-closets. A lesson is to be drawn from this. Such conveniences ought to be at hand in all parts of every city, and accessible at all times, whereas we can not mention one city which makes even decent provision for the necessities of the public.

The hospital service for the encampment was well conducted, there being a field service both at the Camp and downtown, with physicians and trained nurses in constant attendance, while more serious cases—of which there were remarkably few—were immediately transferred to the permanent hospitals.

To swell the population of a city of rather less than four hundred thousand, by half as many more, for a few days; to call into the streets every one of the six hundred thousand that could be spared from work or was physically able to go; to assemble as part of such a crowd fifty thousand men past the prime of life, already fatigued by long railroad journeys, and to subject them to unaccustomed modes of life and tempt them to excesses in eating, drinking and physical exercise—all this might well be expected to produce disease, injury and fatality. That it did so only to a minimum degree, attests the perfection of the sanitary and police service and the hardihood and good sense of the American people. The route of the procession was planned with due consideration for the infirmity of many of the veterans. It was two miles and a half long, entirely over asphalt pavement which was cleaned between each two divisions. There was no considerable

hill and more than half the distance was arched by shade trees.

At short distances were relief stations where oatmeal water was served without interrupting the march, and where medical men were in attendance. At one of these, seventeen trivial cases were treated, all among spectators; at another, forty-eight, mostly among spectators. In short, no serious immediate effects were noted among the veterans. At the camp hospitals various minor ailments and injuries were treated, "gastritis" of unspecified origin, and diarrhea being the most common. Three fatal accidents occurred, all due in a sense to carelessness of the victims, yet all practically unpreventable and of the class which is inevitable in crowded cities. One girl fell from a bicycle under a slowly moving trolley car; a little boy was run over by a train; a veteran, by boat, fell through an open hatchway.

Such accidents as these can be ascribed to the encampment only as through its determining a crowded condition of the city. Yet they point a moral—as little applicable to Buffalo as to any city in the country—that roomy streets and careful restriction of sources of danger are desiderata in every city, and that the time to avoid stinginess in laying out a town and to preserve the citizens from the dangers of traffic is early in the history of that town. Too many cities have surprised themselves by developing a population and an importance far beyond the hopes and the provisions of their founders.

In conclusion, the Press Committee of the G. A. R. must be thanked for securing the representatives of medical journalism various courtesies during the encampment which are often accorded only to members of the daily press. This privilege is valued all the more highly on account of the contrast to the narrow views sometimes expressed and which tend to divide journalism into a number of sects, simply because the manner and matter of writing and the hours of work happen to be different in the various fields.

INDIA RUBBER.

India rubber consists of the dry, coagulated milky juice of various trees and shrubs found in India, Central and South America. This juice is contained chiefly in the middle layer of the bark in a network of minute tubes and in its natural state is a pale yellow color of the thickness of cream.

The natives tap the trees in the morning and during the day half a pint of the fluid is received in a clay cup placed at the trunk. This fluid at once begins to harden, which process is aided by the exposure to the smoke and heat of a fire, and thus the substance acquires its ordinary black color.

The crude rubber as it hardens is made into the form of balls or shapeless lumps, in which condition it is received in this country by rubber factories.

At the factory these balls are first placed in a vat of boiling water and softened, next sent to the masticating machine, where it is ground up very fine and mixed with sulphur. After being put through this machine several times it is worked through smooth heavy rollers under an enormous pressure, which packs it together in the form of a mat. This mat is then thoroughly dried, which takes from four to six weeks. Next it is put through a series of very hot rollers until it is sufficiently pliable to admit of being spread on cotton cloth.

This operation is performed between two iron cylinders, the pliable rubber being run in over one and the cloth over the other, the heavy weight forcing it thoroughly into the meshes of the cloth.

In this manner rubber or rubber cloth of any desired thickness can be produced by regulating the distance between the iron cylinders—from the thin gossamer tissue to a boot sole.—*Assoc. Merch. Jour.*

CORRESPONDENCE.

INTERFERENCE IN CASES OF SHOCK.

The question of shock is one that should attract a great deal of attention. Much nicety of judgment is required to determine just when to interfere and when to wait. I have had a good deal of experience with shock, although I do not do general surgery.

I remember an obstetric case or two that seemed to be moribund from post-partum hemorrhage. We turned out the clots and it would fill up again. There was uterine inertia, the pulse failing at the wrist, the patient looking as if she were dead.

In such a case, if you fill a douche bag with water, attach an aspirator needle on the end of the syringe, introduce into the skin of the flank and introduce from a pint to a quart of water on each side, and use ether instead of chloroform, the patient will often go through the operation all right.

The water is not absorbed so readily from the rectum. It is true the intravenous injection would be better if you were fully prepared for it in that it would act quicker.

One day I received a despatch to go to Natchez. When I arrived, the next morning, I found the patient had a little respite from the hemorrhage. I stuck a needle in the side, as I have described. Then I opened the abdomen and turned out the fetus, and by the time we were through the operation we had a quart of water being absorbed from the side, and although the pulse was 150, she got along all right.

This thing of shock is a difference between the sympathetic and vaso-motor systems. In shock the patient is bled, whether the shock be from malaria, a sick stomach or a loss of blood poured out on the ground, or into those vessels in the abdomen, and the symptoms are much alike.

Recently I got a message to go to Hot Springs prepared to operate. When I arrived I found a stout woman, with a pulse of 150 or 160, vomiting. She had retained nothing for a week or two and she was in a dying condition. It did not look as if she would live until morning. I transfused her and she had a living pulse in an hour. We operated the next morning, under much better conditions.

T. J. Crofford, M. D.
Memphis, Tenn.

OPERATIVE TREATMENT OF CANCER.

I think it is five cases in which I have removed the mammary gland for malignant disease, and in none of the cases has there been a recurrence of the disease. I believe where clean, complete and thorough work is done, recurrence will be the exception rather than the rule.

In the hospital in New York it is now claimed there is at the present only about 16 per cent of recurrences. So I think we may hope recurrence will prove the exception, instead of the rule, as heretofore.

The removal of all muscular tissue I have never done. The operation was first suggested by the younger (S. W.) Gross. The complete removal of the breast, the integument covering it, and the lymphatic glands, whether involved or not, is the operation I have performed, except in one case, in which I found the pectoral muscles involved and removed them. But when you cannot make out any involvement of the muscles, I do not see why we should remove them The work of Halstead and Meyer does not compare with the work of any others.

The most important thing in these cases, as has been noted for quite a while, is that almost always sooner or later tumors here turn out malignant, although they may remain for a long time benign. But sooner or later, as was noticed by the elder Gross years ago, and by men prior to him, they do become malignant. The important thing is the early removal of these growths.

W. K. Sheddan, M. D.
Williamsport, Tenn.

ABSTRACTS.

THE DISGUISES OF TYPHOID FEVER.*

The older we grow the less we know. That, at any rate, is what I feel at times when I come up against the blank wall of a case of fever; is it typhoid, malaria or remittent? Now it is often a very difficult matter to make a satisfactory diagnosis early in tvphoid fever, and the diagnosis is sometimes not made. We have had, I think, out of about 530 cases, with I forget how many deaths, two cases in which the diagnosis was made by Dr. Welch in the pathologic laboratory, and not made in the wards. There are a great many cases during the year in the country in which the diagnosis is never made correctly *intra vatim,* but only post mortem. The doctor is led astray in the diagnosis of typhoid in three main directions. First, its localization may deceive him. Typhoid fever may have a text-book symptomatology, or it may have no single suggestion of anything given in the text-book.

It may, in the first place, begin with such marked cerebro-spinal manifestations that the physician is thrown off at once. It may not enter into his mind during a ten or twelve days' attendance upon a case, that he is dealing with anything other than cerebro-spinal meningitis; and a certain number of the cases of cerebro-spinal meningitis reported by Dr. McShane (I will not say how many, but I would like to say a great many) are typhoid fever with cerebro-spinal localization. Beginning with headache, marked retraction of the head and neck, and, in fact, not a single feature of cerebro-spinal meningitis lacking, it is so clear to you that you do not care to look for the spots or examine the spleen. I am not thinking of theoretic cases, but cases which I have followed myself, not only to the clinic, but to the autopsy room. I have records of some three or four cases in which a diagnosis of cerebro-spinal meningitis is made, but the autopsy clinched the diagnosis of typhoid. We have had one case herein which not only were the symptoms suggestive, but inaddition to the spasm of the muscles of the neck and back, he had clonic contractions of the head and arm.

Another localization is in the lungs or pleura. You see the case as one of pneumonia. The patient's first indication is a stitch in the side; you have a friction murmur, and you are thrown off your guard entirely. The pleurisy cases are not so common as the pneumonia. We have one well marked case in which the symptoms were characteristic of pleurisy, and it was admitted and treated so for one week. The pneumonia cases begin with a pain in the side, rusty expectoration, high temperature, tubular breathings and indications of the involvement of a lobe of the entire lung, and are more deceptive. You give a diagnosis of pneumonia; so it is, but about the tenth day, when you expect the crisis, it does not come; the temperature develops, the abdomen becomes tender, and you have the extreme pleasure of telling the familv that typhoid symptoms are developing. Now it is a blessing that Louis invented the name "typhoid symptoms." One of our errors of diagnosis was a case of that kind; an old man admitted with all the symptoms of pneumonia. It did not enter our minds for a moment that he had anything else than pneumonia until Dr. Welch examined him, and then it was evident that he had typhoid fever.

Another mode of disguise is acute nephritis. That is fortunately rare, for the cases are almost invariably diagnosed as acute nephritis, and not considered typhoid until a week or ten days have elapsed. Those are the chief errors of diagnosis, and it is a point that I often find practitioners have not had their attention sufficiently called to, namely: that typhoid may begin this way.

There are certain conditions that simulate typhoid fever. The simple continued fever, about which we have heard so

* WILLIAM OSLER, M.D.—Remarks made at the Conference of Health Officers, at Baltimore.—*Maryland Med. Jour.*

much, is a fever that runs a week or ten days. You are safe to follow Murchison's opinion that the fever with local manifestations persisting ten days in a temperate latitude is likely to be typhoid. You must bear in mind that there are cases of typhoid with fever as the single manifestation; no swelling of the abdomen, no headache; patient feeling well and anxious to get up; and you may have the diagnosis demonstrated in a very unpleasant way; the patient being allowed to get up, perforation may occur and hemorrhage follow, as I saw in a case recently. We must have had six or seven cases in the past seven years in which the diagnosis of the fever was not made in the preliminary fever for which the patient came into the hospital. The temperature dropped two or three days after coming into the hospital, a period of apyrexia of three or four days, and then the original disease was determined by the onset of a relapse.

There is only one disease in this latitude with which typhoid is likely to be confounded, and that is the estivo-autumnal intermittent fever. Now when I tell you that only a few months ago we treated a case five or six days, the blood examination had been made (not by Dr. Thayer or myself, I might remark; but it was made), and it was not until the sixth day that we could determine that we had been tubbing and treating a case of malaria, you will understand that the similarity is very striking. In the first place, take the mode of onset; as a rule, in typhoid fever there is a much longer period of malaise. The patient is out of sorts for a long period, and epistaxis occurs frequently. Herpes is a complication of typhoid, and it is one of the commonest in malaria.

Chills and a chilly sensation are very common in both typhoid and malaria, the number of cases of typhoid beginning with chills being very considerable. Positive chills, occuring at intervals of two or three days, are more common, of course, in malaria; but if you take into consideration the chilly feelings they occur in about 50 per cent. of the cases of typhoid. There is a very great difference, if you see the cases early, as you do, generally in private practice, in the first or second week of typhoid or malaria. In malaria, at the onset, there are positive intermissions in the first week; in typhoid there are none; it is a gradual slope upwards. In the second week the difference is very marked. There is no single disease in which so steady a fever is present as in typhoid. We have now dozens of charts, even from cases under treatment from cold baths, in which the diurnal range did not exceed one and a half or two degrees.

Examination of the blood is, of course, an important point, particularly now since the Vidal serum diagnosis method. In a certain number of cases of malaria, remittent and continued fevers, the examination of the blood has to be made repeatedly, and often at short intervals, for the parasites are not present in the circulating blood in large numbers. It is very important that those who are to make examination of the blood in malaria should have proper preliminary training .

Is there a typho-malarial fever? Yes, in the brains of the doctors, but not in the bodies of the patients. There is no combined hybrid disease, and it is only due to Woodward to say that he did not recognize a hybrid disease. Typho-malaria is a villainous name, and should be banished from our vocabularies, and no doctor should ever use it, particularly to his patients. It gives a man a wrong sense of security, and the doctor wastes a lot of good medicine—a lot of good quinin, for instance—because he thinks there is some symptom that points to malaria. I am happy to say that cases of typho-malaria are disapppearing slowly from the health reports; they ought to be banished entirely. Chills, as I told you, occur frequently at the outset of a disease, and they may occur throughout the course of a typhoid fever. The State boards of health hereafter should return to every physician who sends in a diagnosis of typho-malaria his blank and ask for something better. It is too late in the day, gentlemen, to make that diagnosis.

The practice of direct suction by the operator after the ritual removal of the prepuce having, says *L'Echo Medical du Nord*, been productive of many accidents, the use of a small glass tube, with an enlargement filled with cotton wool, has been adopted in Holland and Germany. The suggestion originated with M. von Pettenkofer, of Munich.

HOW LONG IS SYPHILIS CONTAGIOUS?*

I may state without fear of successful contradiction, that there are no well authenticated cases on record of syphilis occurring in the second generation as a result of heredity. I again state that there are no cases on record where vaccino-syphilis has been transmitted from children over eight months of age. Hence, no matter what conditions may confront us in acquired syphilis, it is almost certain that in hereditary syphilis its power of transmission is lost by the end of the first year of infection.

The question as to acquired syphilis is one which is far more perplexing in its entirety. The majority of authors with whose teachings we are familiar hold that from three to five years are required before the contagiousness of syphilis is at an end, but state that in exceptional cases it has been found to remain over a period ranging from six to twenty years; such cases undoubtedly occur, but they must be rare indeed.

Jonathan Hutchinson, before the third International Congress of Dermatology, London, made the bold statement that syphilis had generally lost its contagiousness at the end of the first year of infection; he further stated that he always allowed his patients to marry at the end of the second year, and in but two instances had the children shown any signs of syphilis as a result of such marriages. Such advice is not without danger, and could hardly be called conservative.

I now call to mind four different cases wherein syphilis had been disseminated at two, three, five and one-half, and seven years, respectively, after the initial lesion had occurred. I would state that in the case where syphilis was contracted five and one-half years after the initial lesion, three men were the victims. When the woman, the fourth victim and disseminator of the disease, came under my observation, there was situated just off to the left of the meatus urinarius an ulcer the size of a silver dime. She also was the unfortunate possessor of numerous scars, pretty well scattered over her entire body, in sizes ranging from that of a split pea to that of a silver dollar and larger, some of them being slightly discolored, but the majority pale and shiny in their appearance. She assured me that her disease had been terrible in the extreme, and that the scars I saw had been there for a period of three years, and from their appearance I do not doubt her word. I know that in this instance it may be charged that this was a case of reinfection; but these cases are so rare, and besides her general health being apparently good, she was treated locally (and, for reasons which I need not state, was given no constitutional treatment whatever), and the lesion healed in about two weeks. I have observed her for about four years since that time, and she has shown no manifestations of syphilitic disease.

The so-called gumma or tertiary period is usually considered to carry no infection; but from what I have just related, I hardly think that I would care to make the experiment upon my own person. I will further state that the first, second, and fourth cases mentioned were all of hereditary syphilis transmitted through marriage.

The case of infection at the seventh year is peculiarly an interesting one. The father had acquired syphilis seven years prior to marriage with a perfectly healthy young woman; as a result of this marriage a child was born one year afterward, manifesting all the symptoms of hereditary syphilis. At the age of three years this child became hemiplegic, from which she has never recovered. The second child two years later was born healthy and has remained so; two abortions occurred after the second child was born; but at the end of three years another child was born, with a distinct syphilitic rash, snuffles, mucous patches, etc. Six weeks after the birth of this last child the mother, heretofore having remained perfectly well all these years, developed a most beautiful macular eruption all over the body, with enlarged glands, sore throat, etc.; which case seemingly proves an exception to the well-known Colles law.

In conclusion I would like to assert dogmatically that treatment does remove

* C. T. Drennen, in *Memphis Med. Monthly.*

not only the manifestations of this disease, but the disease itself, and with it its contagiousness, some eminent authorities to the contrary. I believe that syphilis loses its virulency as time progresses, and that by the end of the sixth year it has practically lost its contagiousness, with here and there a single exception. I further believe that where patients have been well treated, they may marry, all things being equal, in three or four years after the primary lesion has occurred.

EPISTAXIS AND ITS MANAGEMENT.

Some apology, no doubt, is due for introducing the oft-times trifling complaint of nasal hemorrhage. I should not have done so except for the still inadequate teaching of recent text-books. For instance, I see compression of the wings of the nose gravely announced in a list of other mostly ineffectual remedies and procedures (in Roth's "Modern Materia Medica"). To attest the popularity of this work the publishers announce on the title page that it is passing through its 7th edition. In an English translation of a German reference book, surgeon's *agaric* and *gossypium hemostaticum* are urged, terms which sound as quaintly as if cribbed from the archives of medieval Italy.

It is the purpose of the present paper to give a clear account of the more frequent sites and causes of epistaxis, and up-to-date methods of arresting it. I wish to lay considerable stress on the proposition that whatever the known or unknown constitutional cause may be, there is always a local cause and a local lesion to be sought out and treated.

First, as regards the site: It is most often found (certainly in non-traumatic cases) springing from the septum and generally quite anteriorly, just below and in front of the tubercle of Cresswell-Baber. That is at the point of union of the spheno-palatine with the inferior artery of the septum. This region is not more than one inch inwards from the vestibule, but that it generally has been overlooked as a hemorrhagic center will not seem so strange when it is known that that eminent observer who has given us the best clinical description of this and allied diseases, Sir Morel McKenzie, was unaware of the fact here set down for the greater part of his life.

Nevertheless, this region is readily brought to view by use of the head-reflector, and any one of the numerous nasal speculae, the patient, during the procedure, sitting with the face turned upward. In simple cases, a cotton carrier, delicate dressing forceps, a silver probe fused with argenti nitrate, and the armamentarium of the amateur rhinologist is complete. Let him use this remedy sparingly, lightly on the bleeding surface, and he will not often be disappointed. If the bleeding continue, a styptic which coagulates or decomposes the blood on contact should be used. The best and handiest, perhaps, is the subsulphate of iron, finely pulverized and rubbed into the mesh of antiseptic gauze, cut into narrow strips, or reduced to the size of one's finger-nail. One or more of these pieces may be carried to the bleeding point, and a black, hard, coagulum will quickly form, thus making unnecessary the hazardous and most often futile injection of solutions of the same remedy, and preventing the unscientific posterior tamponing in these particular cases.

A still more effectual remedy in my hands is the stronger nitric acid. Its proper use will now be described in detail. Choose, if possible, a moment when the bleeding has temporarily ceased. Wash the blood away with a fine spray of one per cent. solution of cocain. Pack about the bleeding point pledgets of cotton previously soaked in a ten per cent. solution of the last-mentioned remedy. In a few minutes remove the cotton and spray the affected side with plain glymol. Meanwhile prepare some wooden probes (tooth-picks will answer) by wrapping one end of each with a wisp of absorbent cotton. When all is ready, ask the patient to take a deep inspiration, and command him to "hold it." Take up less than a drop of the fuming acid and quickly carry it to the wound, directing the pa-

* S. Trask, M.D., in *St. Louis Clinique.*

tient to exhale strongly through the nose. A minute eschar is formed, which drops during the healing, usually in a few days. In cases where the bleeding is active, and however profuse, several of these small probes should be inserted into the nose, cut off with strong scissors, just within the ala, and left in position for one day or longer. The excess of acid is neutralized by the outpouring blood, and is decomposed into a semi-fluid looking like ichthyol.

Now, should the bleeding continue or recur, grave internal or malignant local disease is the cause. Whatever the malady, to compose the nervous system, lessen the often tumultuous action of the heart, and limit the supply of blood to the naso-pharynx, give at once a hypodermatic injection of morphia and atrophin. Suitable ergotin preparations may be used in the same manner.

Of internal medicines the most reliable and readiest at hand is opium, and the ever-reliable spirits of turpentine. Of late calcium chlorid is coming into favor. Its use was suggested to Dr. Wright, a Canadian practitioner, who observed that the children of a hematophilitic family ate common plastering. Experimenting with it on himself, he found the blood-coagulation time was reduced. He then employed it in two cases, in doses of 30 grains 3 and p. d., at first, and later in less amounts (10 grains), with the result of cure. In one case the blood-coagulation time was reduced in two days from eight minutes to two and three-quarter minutes.

EXTRACTS FROM A PAPER ON ARSENIC.*

Arsenic, or to speak more correctly, arsenious acid, is not only a powerful poison but is a valuable remedial agent.

The Aqua Tofana made and sold by the iniquitous Tofana or Tophiana, who is supposed to have poisoned with it more than six hundred people, including two popes, Pius III. and Clement IV., was made by rubbing white arsenic into pork and collecting the liquid which drained from it during decomposition. It is probable that in the process a ptomaine or cadaveric alkaloid was formed possessing properties of the highest degree of toxicity. Long after Tofana's death it continued to be made at Naples and to be distributed secretly throughout Italy. It was used by Hieronyma Spara, an old fortune-teller who was presidentess of a society of young married women whose diversion was to poison their own and other women's husbands. Marie de Brinvillier's poison contained arsenic, and it was the active principle of the *poudre de succession* or inheritance powder for which at one time there was an extensive demand.

In more modern times the drug when used for criminal purposes has usually been obtained by washing it out of "fly papers." The secret assassin has some difficulty in obtaining so deadly a poison by open purchase, for in most countries it is enacted that arsenic must not be sold retail unless mixed with a certain proportion of either indigo or soot to color it.

Arsenic enters largely into the composition of various articles of domestic economy and was at one time a constant constituent of colored wall paper. It is often added to common candles to give them a wax-like appearance. It is used in the binding of books, and the dust which collects on the top of the book cases in libraries often contains considerable quantities of arsenic. It is a frequent constituent of the outside wrapper in which cigarettes and tobaccos are sold, and it is also used in coloring carpets, advertisement cards, playing cards, India-rubber balls, dolls and children's toys, artificial flowers, sweets, hat linings, gloves, and a number of other instances. There is an impression that arsenic is a common ingredient of the "face powders" used for the complexion, but in conjunction with my colleague, Dr. Wilson Hake, I have recently looked into the matter and find that although zinc, bismuth and lead are often present, arsenic is uniformly absent.

Cases of chronic arsenical poisoning are

* WILLIAM MURRELL, M.D., F.R.C.P., in the *Canada Lancet.*

very common, and too frequently are not diagnosed. The patient my suffer from nausea and vomiting, loss of appetite, diarrhea and pains in the abdomen, or conjunctivitis may be the prominent symptom. Not infrequently he develops a cough, spits blood, suffers from periodical attacks of dyspnea and rapidly wastes away. This condition has been more than once mistaken for phthisis even by well known physicians and pharmacologists.

The injury to the health which has resulted from the use of articles of clothing containing arsenic has more than once given rise to actions for compensation. The most recent trial of this description was held only a few weeks ago at Croydon, Eng. A lady purchased at a store some green glazed linenette, and in the process of making it up suffered from symptoms which were attributed by her physician to arsenic, the drug being subsequently detected on analysis.

As arsenic is in such common use its quantitative estimation is a matter of considerable importance. The tests usually employed are Reinsch's and Marsh's. It is commonly supposed that they are of extreme delicacy and accuracy, but of late considerable doubt has been thrown on the correctness of the statement. For example, in the linenette case to which reference has been made, Dr. Bernard Dyer found that the fabric contained one two-hundredth of a grain of arsenic in the square foot, or approximately one-twentieth of a grain in the square yard, whilst Dr. Stevenson, the official analyst to the Home Office, found only one-thousandth of a grain in the square yard. Dr. Stevenson employed Marsh's test, and Dr. Dyer commenting on the results obtained, says: "Under some circumstances not yet well defined there is in my experience some degree of uncertainty in Marsh's test when it is relied upon for the quantitative estimation of such very minute quantities of arsenic as these." It is difficult to over-estimate the importance of the statement from so well known an authority, considering the frequency with which arsenic is used for criminal purposes and the absolute reliance which is usually placed on expert evidence.

WRITTEN EXAMINATIONS.

While written examinations are possibly not the best method of getting at the quality of a person's judgment and perceptions, nevertheless they are often the only means that are reasonably feasible, and usually a large majority of those examined show a high degree of excellence, but there are sometimes glaring exceptions to this general proficiency which are amusing if not instructive. During an extensive examination made some time ago, one person made a classification, "infectious, cutaneous, and subcutaneous diseases." Another describes scabies as "A diseases of the skin due to the presence of a small *germicide*." Still another said, "A person to be vaccinated has the epidermis or skin or epithelium scraped from his body." To the question, "What is *trachoma?* was answered: 1st, "Swelling of the *trachea* causing pressure." 2d. "Trachoma is a parasite introduced into the human system through food, mainly flesh of hogs!" 3d. "Trachoma is a severe disease of the eyeball, which may terminate in blindness." To the question, "What is the *habitat* of tinea tonsurans? was answered, "Habitat, small intestines, diagnosis is made by examination of the stools." 2d. "Tinea tonsuráns—constipation, restlessness, picking of the lips, convulsions—worm may be passed." In tinea circinata another said, "They have itching of anus, scratching—anus red, and may be able to see the worm externally." To the question, "What is the *habitat* of each variety of pediculus? the answer was "Usually a person very lax in the care of his head and body." The following was the entire clinical history given of whooping-cough: "Patient has *diffused* eyes, often blue rings around, when spasms are strong the patient whoops, has asthmatic attacks." Here is an interesting specimen of natural philosophy in reply to a question about ventilation: "Fresh air is generally much cooler than foul air, and in consequence rushes through ventilators, windows, doors, etc., driving the warm air before it.—*Atlantic Medical Weekly.*

VIRCHOW ON SPECIALISM.

The Berlin public have not lately had so many opportunities as usual of hearing Prof. Virchow, but at an opening meeting of the Congress for Innere Medizin he was called upon to make a speech. His appearance, as is not unusual, met with enthusiastic applause. He said that from the first moment of his public activity he had set himself against specialties. His friend Traube was the first who gave him pause, and whom he gave in to, but not with full conviction. Then one after another came until they came to the great authorities of the present time, of whom he willingly confessed that they had pretensions to appear something special.

Nevertheless, he still cherished the hope that externally the communion of interests that bound together the different branches of medicine would again come into force. From the separation into the Surgical Congresses, those for Innere Medizin, and Gynecological Congresses, with which another, that for Pathology, would soon be associated, proceeded a distraction, from which arose the appearance that there were greater differences in fundamental views than was really the case.

The individual directions that were considered specialties, spread abroad their pretensions, and nothing was worse in regard to this than pathological anatomy, which was comprised in all of them. It was sometimes the surgeons, sometimes the physicians, sometimes the gynecologists, who specially busied themselves with it. He could not think that this was very fortunate. The old pathologists would cross themselves if they could rise again.

It had been possible, however, that upon this foundation of the newest and most powerful research an attempt has been made to build up a new humoral pathology that progressed victoriously. But even from the speech of the absent president, serum therapeutics were not far enough advanced to form the foundation of the therapeutic work of the future.

He went further, and believed that the fortunate results that had been attained in some directions laughed at all explanation, and that there was no theory, but only a practical knowledge, such as had been reached through Jenner in small-pox, where even to-day we were far away from any scientific explanation. He would not, however, offer any opposition if the Royal Government built further on such hopes, from which it believed it had greater certainty than was actually the case.—*Med. Press.*

BENZOL AND ITS IMPORTANCE AS AN ILLUMINANT.

At a recent meeting of the Berlin industrial society Dr. Kraemer read a paper on benzol and its importance as an illuminant. Bunte and Schilling were the first who recommended benzol as a carbureting agent for gas. By the use of 4 grains of benzol per cubic meter of gas its illuminating power can be increased by one Hefner light. The first experiments made at the Munich gas works furnished still better results. For the average 12 to 14 Hefner light gas there were used according to Rau but 2 grams per cubic meter and Hefner light. The use of benzol as carbureting agent permits an easier desulphurization of the gas, the recovery of a stronger and denser coke and prevents the stopping up of the pipes by naphthaline. Although benzol is now being used more extensively for gas carbureting purposes, its consumption is still rather small. For a large city, like Hamburg, for instance, it amounts to but 300 tons annually. Gas works having good and cheap gas coal at their disposal do not use benzol at all, and since the introduction of incandescent gas light the illuminating power of gas proper has lost much of its former importance. But benzol can also be used directly as an illuminant, although by itself only in specially constructed lamps owing to its high carbon contents.

As early as 1855 mixtures of highly spirituous and carboniferous bodies, as spirits of turpentine, were used under the

name of "camphine" for illuminating purposes. Recent tests with wood spirit and heavy benzol for incandescent light furnished favorable results. The proportion of 15 per cent. of wood spirit to 85 per cent. of alcohol should not be exceeded, as more wood spirit would cause the mantle to soot. It was shown that wood spirit could be replaced by 90 per cent. benzol without injury to the lighting power. Naphthaline is the least adapted, as it does not dissolve easily in alcohol. An addition of 15 per cent. of benzol to alcohol for incandescent alcohol lamp proved a saving of more than 26 per cent., as compared with pure alcohol. For an ordinary lamp, of course petroleum cannot be replaced by this mixture on account of its higher cost, but in the case of a greater advance in the price of petroleum alcohol-benzol mixture should not be lost sight of.—*Amerioan Manufacturer.*

THE GREATEST OF LITERARY MEN IN VICTOR HUGO'S OPINION.

Victor Hugo said that the greatest Pelasgian was Homer; the greatest Hellen, Æschylus; the greatest Hebrew, Isaiah; the greatest Roman, Juvenal; the greatest Italian, Dante; and the greatest Briton, Shakespeare.

Homer lived some time between 1000 B. C. and 850 B. C.: as near as we can fix the date. He is called the greatest Pelasgian, though born at Smyrna, because Pelasgia was that part of ancient Greece now called Thessaly, where it is certain that the greater part of Homer's life was spent, and where he wrote his immortal "Seven cities claimed him dead, where Homer, living, begged his daily bread."

Aeschylus was born at Eleusis in Attica in the year 525 B. C., and died at Gela in Sicily, 456 B. C. He wrote ninety tragedies, forty of which won public prizes. He was the first to erect a regular stage, with scenery and appropriate costumes. He was killed by a tortoise dropped on his head from the beak of an eagle.

Isaiah was one of the four greater Hebrew prophets.

We know not his name, nor of what tribe he was; but he was a prophet of the kingdom of Judah. and must have been an old man in the time of Hezekiah, who died 698 B. C. Smith says of him, "His mind is the most sublime and variously gifted instrument which the Spirit of God has ever employed to pour forth Its Voice upon the world."

Decimus Junius Juvenalis was born in Aquinum. The exact date of his birth is unknown, but he was a youth in the time of Nero, who died in the year A. D. 68; and he was a writer between the years 81 and 117.

Juvenal was the Satirist of Indignation, as Horace was the Satirist of Ridicule.

Among Dryden's masterpieces are his versions of five satires of Juvenal.

Dante was born in Florence, May 14, 1265, and died in Ravenna, Sept. 14, 1321.

His passionate and undying love for Beatrice was the poetical inspiration of his life.

"The Divina Commedia," depicts a vision in which the poet is conducted, first, by Virgil, "the representative of human reason," through hell and purgatory; then by Beatrice, the representative of revelation; and finally by St. Bernard, through the several heavens, where he beholds the Triune God.

William Shakespeare was born April 23, 1564, at Stratford-on-Avon, in Warwickshire, England, and is the chief literary glory of that country.

He married Anne Hathaway, and had two daughters and one son: the latter did not survive his father.

No edition of his plays was published until after his death. Many separate plays were rudely printed; but the first (folio) edition appeared in 1623, seven years after he died. The few remaining copies of this edition are very rare and costly. He died on his fifty-third birthday, in 1616.—*Curious Questions.*

SOCIETY REPORTS.

NEW YORK ACADEMY OF MEDICINE.

SECTION ON ORTHOPEDIC SURGERY.

MEETING OF APRIL 16, 1897.

The Non-cutting or Unbloody Operation of Lorenz for the Re-position of Congenital Dislocation of the Hip.

This paper, by DR. G. R. ELLIOTT, was chiefly a description of the different steps of the procedure, viz.:

(1) The reduction, or bringing the head to the level of the acetabulum.

(2) Re-position, or wedging the head into the acetabulum.

(3) The formation of a solid acetabulum by manipulation and allowing the child to walk about with the thigh fixed by plaster of Paris at about ninety degrees of abduction. The three steps of the operation were performed under chloroform on a patient, a boy twenty-two months old, by Dr. Elliott before the members of the Section.

DR. T. H. MYERS reported the successful performance on a similar patient, three and a half years old, of Paci's method of manipulation, viz.: Forced extension, flexion and then strong traction downward. There were telescoping, lordosis and all the other signs of dislocation, and one-half inch of shortening. A good deal of force was used in order to cause inflammatory adhesion. The limb was immobilized at thirty degrees of abduction, the spica was changed several times in the following six months and the girl was then allowed to go about with a walking brace and a high shoe on the sound side. She walked with a splint walk when the apparatus was removed. The limbs remain at a nearly equal length.

DR. W. R. TOWNSEND said it would be a great advance if these cases could be cured without a cutting operation. In his experience and observation open methods had proved unsatisfactory. The patients continue to walk lame and dislocation is liable to recur. He thought the superiority of the new methods could not be taken for granted at once. He had treated one patient by the Paci method.

DR. R. H. SAYRE had seen but one patient in whom the hip could be distinctly reduced by Bigelow's manipulation, but he had not been allowed to operate. In this case it was necessary to abduct the limb much more than had been done in the patient treated this evening. He had not achieved brilliant success by operating. In one case after the child had been walking for six months an abscess developed in or near the joint.

DR. R. WHITMAN ha operated four times by Lorenz's method and had seen great advantage from the application of twenty-five or thirty pounds of traction for three weeks before the reduction. It facilitates bringing the head down to the level of the acetabulum which at times requires a great deal of force.

DR. H. L. TAYLOR also thought these patients should have extreme forcible traction before the operation, in order to overcome more thoroughly the msucular contraction. Operative treatment had not been so far very encouraging and he believed that this procedure held out a good prospect.

DR. WHITMAN said that a point in its favor was that mothers would consent to it when they would not consent to a cutting operation. Moreover, it did not confine the patient in a hospital or even in bed.

DR. ELLIOTT said Paci's and Lorenz's procedures were entirely distinct. Paci aimed to build up a nearthrosis in the vicinity of the joint. His manipulations were first flexion to the physiologic limit, then abduction, then lateral rotation and slow extension, then plaster of Paris for three months and then careful walking with an apparatus. In this original procedure of Lorenz, however, if entrance of the head was not obtained he deemed the case a failure. It was this re-position plus loading the weight of the body on the bone which made the operation. The acetabulum was there, but rudimentary. The parts immediately began to develop when the bone was replaced. The presence of the bone stimulated the growth which had been absent. The force required in traction was sometimes very great.

Achillo-Bursitis Anterior.

In a paper on this subject DR. S. LLOYD stated that the affection was the result of traumatism from tight shoes, shoes wearing the heel, bicycle riding, jumping and fractures; or the result of septic, tubercular, gonorrheal or rheumatic infection. The symptoms were pain under the tendo Achillis on standing and walking and in the plantar region, swelling on the outer side of the tendon, hyperidrosis and extensive inflammation of the surrounding tissues. In the treatment cold and warm baths, the application of tincture of iodin and mercurial inunctions were useless. Traumatic cases required prolonged rest and pressure, and cases having their origin in infection should be treated by incision curetting and drainage.

DR. WHITMAN presented a case of this affection in a woman of thirty-five years who was on her feet from six A. M. till eight P. M. The symptoms, of one month's duration, had been pain in the heel and in the metatarsal joints and on pressure of the os calcis there was slight thickening. He said these cases often become chronic and acquired weakness of the arch, or flat-foot. Rest should be enforced. Acute cases required a plaster of Paris bandage and chronic ones a brace to arrest the function of the joint.

DR. SAYRE had seen cases among athletes, especially hurdle racers, who, in making a leap, landed on their toes.

DR. MYERS had personally suffered an attack of this kind after a long bicycle ride. He could only walk with ease by everting the foot. In plaster the foot should be placed at right angles to prevent the trouble from becoming chronic.

DR. V. P. GIBNEY said that before the pathology was clear these cases used to be called rheumatism of the heel. The region of the tendo Achillis had not been clinically explored. A counterpart is found in the advance in our knowledge which enables us to recognize scurvy in the swelling of joints in children who were called rheumatic.

Coka Vara.

DR. WHITMAN presented a boy sixteen years of age, affected with bending of the neck of the femur of about twelve months' duration. He walked with a limp and eversion of the foot. The elevation and prominence of the trochanter were increased by flexion. Limitation of abduction, actual shortening of one-half an inch with marked apparent shortening from habitual adduction were all present. The treatment would be by removing the weight of the body from the weak femur by the use of a perineal crutch, massage, forcible stretching of the adductors and, if necessary, sub-trochanteric osteotomy. Bending of the neck of the femur was not due to general rickets or the rickets of adolescence, of which there were cases on record. There was, however, a weakness of adolescence which, under favorable conditions, caused this and similar deformities.

PERISCOPE.

Reading and Eye-fatigue.—The *Medical Press* points out the fact that the size of the printed characters is a more important factor in the production of visual fatigue than any other, and the conclusion arrived at is that type less than 1.5 millimeters in height should not be employed. The degree of illumination, so far as concerns daylight in fairly lighted rooms, is of much less importance, although deficient illumination, especially when the source is an artificial light, will, under certain circumstances, induce visual fatigue more rapidly even than small type. Whenever artificial light is employed, a white light is said to be preferable to a yellow light, contrary to general opinion.

WYETH, in the *Polyclinic*, gives these **directions to find the gonococcus**: Place a small drop of the discharge upon a cover-glass and smear by rubbing two cover-glasses together; dry it by passing one of the cover-glasses with pus side upward through a spirit-flame two or three times; immerse this at once in a solution of methyl-blue; wash off the excess of coloring matter by holding it under clear running water, or by dipping the glass several times into clear water; dry the stained pus well by pressing with blotting paper; then cover it with a small drop of cedar oil; put on a thin cover-glass and examine with a lens magnifying from 700 to 1,000 diameters. The peculiar double-bean shaped arrangement of the diplococci will be seen within the protoplasm of the pus corpuscle and epithelium.

When tubes are connected in series they will each give off Roentgen rays. It is said that inasmuch as two pictures are formed when two tubes are placed in this manner, by mathematical data forming triangles, one can calculate the exact position of bodies otherwise difficult to locate. It is likewise useful in connection with the stereoscope.—*Am. X-Ray Journal.*

Dr. Havelburg announces that the microbe which he considers **the specific cause of yellow fever** is found only in the stomach and intestines, but is cultivated by injecting it subcutaneously into guinea pigs. He finds that a previous injection of blood from a yellow fever convalescent renders an animal immune to an otherwise fatal dose of injection of the cultivated microbe.—*Medical Standard.*

One of the pleasant features of the work of the American Medical Association at its late meeting is that it assures the erection of the statue to Dr. Rush at the national Capitol, where Philadelphia is already honored by a statue of Dr. Gross. These two men are fairly representative in diverse ways of American medicine, and particularly of Philadelphia medicine of the past. It is encouraging to note, however, that Philadelphia still, as in the time of Rush, and still, as in the time of Gross, is a center where the practical art and pure science of medicine are exemplified in the excellence of its teaching and the ability of its professional men.—*Med. Times.*

Scarenzio (*Gazz. Medica Lombarda*) reports three cases of **lupus successfully treated with injections of calomel.** The first case was that of a man, aged 24, with lupus of the face of seven years' duration. Admitted into the hospital in January, 1896, the parts were freely scraped, and some improvement followed. On readmission in November, 1896, the usual remedies were tried without effect; on January 27, 10 cgr. of calomel were injected deeply into the buttock. The local reaction was rather strong, so that the patient was obliged to go to bed. Four days after the injection there was well-marked improvement. Twenty days later another injection (of 5 cgr.) was given. The patient left the hospital on February 21st, much better in every way. The improvement—when seen later—was maintained. Similar results were obtained in the two other cases recorded.—*Brit. Med. Jour.*

Dr. Patrick, in *Medicine*, claims that the term **spinal irritation** should be banished from medical nomenclatures. He says the pain and tenderness along the spine which are commonly known by this name have nothing to do with the spinal cord or its membranes, or with the spinal column. In so-called spinal irritation, Dr. Patrick says there are tender points along the spine. If these change their location every five or ten minutes such shifting demonstrates that the disease, so far as the tender parts are concerned, is entirely functional and situated not lower than the cerebral cortex. Upon the correct differentiation between positive spinal irritation and functional disturbance, the seat of which is probably in the cerebral cortex, the success of the treatment in a great measure depends.—*N. Y. Med. Times.*

In Enteritis of Children, after the bowels have been thoroughly washed prescribe the following:

℞ Bismuthi subcarbonas,..	4-8	(ʒ i—ʒ ii.)
Spir. myristicae..	1	2 (*M* xx.)
Spir. vini gallici	6	(ʒiii.)
Listerine	15	(ʒss.)
Mistura cretae, ad.....	60	(ʒii.)

M. Sig. One drachm every three hours until relieved.

Or the following:

℞ Bismuthi subnit	4	(ʒj.)
Syr. rhei	8	(ʒij.)
Listerine	12	(ʒvi.)
Mist. Cretae	30	(ʒj.)

M. Sig. A teaspoonful every three hours to a child a year old.

If the child is suffering from pain which cannot be relieved by external applications, small doses of some preparation of opium may be used, preferably the camphorated tincture.

If the child is simply irritable, restless and peevish, fluid extract of hyoscyamus and spirits of chloroform in small doses, given in glycerine, will produce quiet and rest.—*Codex Medicus.*

The news comes from Paris that a number of rabbits have been stolen from a hospital where they were being used in the culture of germs of cholera, diphtheria, the plague, and other diseases. It is feared that the rabbits will be sold for food, but the bacteriologists announce that even if the rabbits are eaten there is no danger if their flesh is well cooked.—*Med. News.*

Montgomery (*Journal of Cutaneous and Genito-Urinary Diseases*) reports an interesting example of **hereditary shedding of the nails** in a man 35 years of age. The patient's mother and two maternal uncles were affected in a similar manner; the father, one paternal aunt, two paternal uncles, and one cousin also had bad nails, but they did not fall off. The affected nails grew dull, yellowish-white in color over the lunula, gradually loosened from the nail-bed, and fell off. The process was a slow one, requiring three months to be completed. New nails grew in from three to eight months, and were apparently perfectly normal. No pain or other subjective sensation attended the process. None of the diseases which frequently accompany disease of the nails, such as psorasis, eczema, pityriasis rubra, were present.

A study of the **connection between aneurism and syphilis** in the *Annales de Derm et de Syph.*, by Prof. G. Etenne (*Med. News*), announces that 70 per cent. of 376 cases examined were found to have syphilitic antecedents, and this is a minimum proportion as it is so difficult sometimes to detect traces of old syphilis. With most of the aneurism the infection dates from five to twenty-five years. No histologic difference between the aneurisms of syphilitics and non syphilitics was noted with rare exceptions. Mercurial treatment is successful if the gummatous infiltration is still susceptible to absorption without leaving scleroma behind it, so that the tissues can resume their elasticity. When the lesion had advanced beyond this stage, specific treatment is ineffectual. The article concludes with the statement that aneurisms, therefore, wih tabes and general paralysis, can be included in what Fournier calls para-syphilitic affections.

A writer in the Boston *Medical and Surgical Journal* calls attention to the advantages of **cork for street paving purposes.** The material used is granulated cork mixed with mineral asphalt and other cohesive ingredients. It is then compressed into large blocks and these blocks are embedded in tar and rest upon a concrete basis six inches thick. The advantages claimed for this sort of pavement are cleanliness, noiselessness, durability, elasticity and moderate cost. Unlike wood, being non-absorbent, it is not malodorous. It has been tested for several years in the cities and towns of Australia, and has given general satisfaction.

Wilcox (*Am. Jour. Med. S.*) records some clinical observations on the **use of strophanthus**. A five per cent. tincture of Strophanthus Kombe made after the method of the U. S. P., was used. He considers the indications for this drug to be: (1) a rapid recurrence of cardiac systole with diminished force and irregular rhythm; (2) Bright's disease, when associated with permanent high arterial tension, and also the conditions of arteriosclerosis and senile rigidity of arteries; and (3) any condition where diuresis is required and can be promoted by increased blood-pressure. Strophanthus should not be employed in cases where the myocardium is in an advanced stage of degeneration, nor where there is an extreme mechanical obstruction to the circulation from valvular incompetence, nor in stenosis. It was found to be particularly useful for corpulent persons, for children, and in anemia, chlorosis, senile vertigo from cerebral anemia, and irritability of the heart. It is considered by the author to have a definite advantage over digitalis in that it has a greater rapidity of action, that its diuretic effect is more powerful, that there is no digestive disturbance or cumulation, that the drug does not lose its effect when administered continuously, that there is a greater safety to the aged, and that it is more valuable in children. The drug must not be frequently repeated and must be used in small doses; the dose recommended by the author is five minims not more than three or four times a day.—*Bul. Pharm.*

The original announcement **of a discovery which, if true, may be of the highest value in medicine** was made in an official report by Hankin to the government. Briefly, Dr. Ghadialli discovered a bacillus to which he ascribed the power of destroying enteric and allied micro-organisms. Research was suggested by the fact that when samples of water contained the newly discovered bacillus, the enteric microbe and its allies were never found. A series of experiments led to the general conclusion that under certain circumstances the new bacillus was able to destroy the enteric forms in water. Hankin has named the aggressive microbe after its discoverer, "Micrococcus Ghadialli." In pure cultures it is harmless to man when swallowed by the mouth, and produces no ill effects when injected into the peritoneal cavity of rabbits and guinea-pigs. Information of this kind from an authority like Mr. Hankin justifies some degree of confidence that the "young Parsee doctor" has opened brilliant therapeutic prospects in the treatment of a deadly malady.

For Removal of Warts and Corns.

℞ Acid salicylic	2	(℥ss.)
Ext. cannabis indic ..	33	(gr. v.)
Collodion flex	16	(℥ss.)

Sig.: To be painted over such an area, twice daily, for three days, when an oil poultice is applied over night.

According to John H. Pearson (*Pharm. Jour.*), the separation that so frequently takes place in glycerite of starch can be entirely overcome by means of a very small quantity of tragacanth, one grain to the ounce of finished product having been found by him sufficient to keep the glycerite from separating, and even to correct this in preparations that had "gone wrong."

Dr. Blodget (*Boston Med. and Surg. Jour.*) reports a case of **Carcinoma of the Breast of a Youth**, born of healthy parents free from all suspicion of malignant heredity. The father had been at times grossly intemperate. Up to the age of twelve the boy presented no appearance of glandular or other disease, but soon after this time a swelling was noticed in the left breast, beneath and attached to the nipple, which was slightly reddened and harder than its fellow. The swelling and induration gradually increased in size during the succeeding months, and the skin became more extensively adherent. Surgical removal of the breast was advised, assented to, and effected. The growth presented on microscopical examination the typical structure of carcinoma, and had invaded all visible glandular tissue of the breast. The wound healed by first intention, and there had been no recurrence or metastasis at the end of five years.

It will be, we fear, of little use to preach **unity in all ranks of the medical profession** while we have so many traitors within the fold. The class that chiefly work the harm may be called the "undersellers," those who are ready to offer their services to the public in return for paltry and degrading fees. We see no way of lessening this abuse until the question of fixed charges is agreed upon, just as is done in other professions. Why medical men should shudder in their shoes because the epithet "trades unionism" is always levelled at any such suggestion we fail to see. Lawyers take their six-and-eightpences, and barristers their guineas, and no one calls them trades-unionists because they have a clear and definite arrangement on the point. Why then should doctors wrap themselves up in a mantle of proud heroic reserve, and elect to starve instead of handling the money question, which is vital to existence, in an open, common sense way? But undersellers exist in all ranks of the profession. The medical aid officers undersell and compete with the outside rank and file. The hospitals undersell by taking pay for advice, medicine, and lodging; consultants by seeing patients at less than ordinary fees. It will be a good day's work when the medical profession rises in righteous wrath and denounces root and branch the whole black sheep fraternity of the undersellers. What is wanted, first, though, is unity and a clear definition of what the laboring classes assign with unsentimental bluntness to the cult of the blackleg.—*Med. Press.*

The dangers attending the herding together of children in large numbers has often been pointed out, but it is a matter that will bear repetition. **Hospitals for children are very laudable and necessary institutions,** still the fact should not be forgotten that they have their dark side and are liable to be abused, says *Pediatrics.* Hospitals for infants on a large scale are often most injurious to the health of their inmates. This truth has been proved time after time, more especially in Paris. One of the largest children's hospitals in that city was designated but a short time ago as a veritable death trap. An infant should be admitted into a hospital only under very exceptional circumstances. If there is any chance of the child being nursed properly at home its parents would much better keep it there. No cases but acute ones should be admitted to a hospital, and discharge should be made immediately on recovery. On account of the great sensitiveness of the child's organism, the young should live under the most healthful possible conditions. Pure air is more important for the maintenance of the health in children than in grown up persons. A child, whenever it can be avoided, should not sleep in the rooms in which they remain in the day time. Where children are together in large masses diseases are liable to break out without any apparent cause. Female children who are long in a hospital often suffer from severe vaginitis. An epidemic of dysentery was traced at Bonn asylum to the drying of children's clothes in the nursery. But cases demonstrating the extreme sensitiveness of young children to infection can be multiplied without number, and enough has been said to emphasize the point that hospitals for infants should be regarded with a certain amount of distrust.

It is well known that **dilatation of the hollow viscera** is a morbid condition commonly gradual in its development and equally, if not more, slow in its amendment. It derives, moreover, a peculiar interest from the fact that it constitutes a form of change which marks the transition between functional and organic diseases—a stage at which overwork and weakness of tissue account for the whole pathology, and which is therefore often well within the hope of a healthy reversion. Additional light has recently been shed on this subject by a paper published by Dr. Comby in the *Journal de Clinique et de Therapeutique Infantiles.* The writer's observation have been limited to the the study of gastric dilatation during infancy. He finds that at an age when the newly-formed organ might be expected to be fully competent the stomach frequently shows a marked degree of dilatation. In 64 children who died in the Hospital for Sick Children, Paris, this viscus was found to be dilated, its volume varying from 200 c.c. to 310 c.c. In sixteen others it was contracted. Dr. Comby explains the former condition as being due to atony produced by an auto-infection by putrescent matters resulting from an improper diet, the latter as an evidence of the refusal of such food by the child, who is consequently starved. He believes that infantile dilatation is by no means always recovered from, and that many cases of a like kind are discovered only in the adult or the aged have had their true beginning in the earliest months of life. As the best means of treatment besides a suitable diet, he advocates irrigation of the stomach, a catheter being passed along the gullet into the stomach, and this organ repeatedly washed out with fifty or sixty grammes of tepid boiled water or Vichy water. He has never known this method to give rise to any serious inconvenience.—*The Lancet.*

Manino reports (*Bull. Med.*; ref. in *Charlotte Med. Jour.; American Medico Surgical Bulletin,* May 10, 1897) the highly successful results of eight years' experience **in syphilis treated early and energetically.** Instead of waiting for the usual symptoms to appear, the initial chancre is excised, or thermo-cauterized, and calomel injected every fortnight for from ten to twelve months (10 ctg. to 1 gme. glycerin and 1 drop water). After this, the injections are made every twenty days for three or four months; then one in sixty days for two months more, when potassium iodid is administered for two months; then two months more of mercury injections—this time the sublimate. The patient then rests for two months when the iodid is recommended for a while, followed by a protoiodid, which is kept up till the end of the second year. The initial chancre soon subsides, and no secondary or tertiary phenomena have appeared in any of the cases treated during eight years. The inconveniences of this treatment, the painful injections, the temporary loss of appetite and weight, are far more than compensated by the victory over the disease, which is arrested before it becomes constitutional.

In the Boston *Medical and Surgical Journal* Dr. J. Homans records the following case of formation **of gal-stones on sutures left after cholecystotomy.** Cholecystotomy was performed on a woman and ninety-seven gall-stones were removed. The gall-bladder was united to the peritoneum by silk sutures and drained. The patient made a good recovery and remained free from symptoms until twenty months after the operation, when they began to recur. Cholecystotomy was performed again and seven gall-stones were removed; they were found to have crystalized round the sutures, which had become detached and had dropped into the gall-bladder. Though cholecystotomy has been now performed many times we do not know of any instance in which this accident has happened.

A very frequent cause of disease in women is constipation. It is remarkable how careless many women are in this respect. It devolves upon the mother to educate the daughter that it is necessary to health that the bowels should move at least once in twenty-four hours. Not only do they have from constipation a poisoning of the system from absorption of the liquid and gaseous contents of the bowels, the ptomains or poisons developed in them from fermentation producing depressing effects on the nervous system, with derangement of the stomach and assimilative organs, as shown in pale faces, debility, neuralgia, headache, etc.; but we get, in addition, from impaction of the feces in the rectum, uterine displacement, with its consequent disturbances in the pelvic circulation and with its general reflex neuroses. Gynecologists know well that the left ovary is more often diseased than the right one. The left ovary vein has no valve, and a slight pressure upon it prevents it emptying. Doubtless the pressure of a loaded rectum in this event is a prolific cause of ovarian disease, especially on the left side.—*Southern Medical Journal.*

Dr. Arthur Ransome, as quoted in *Popular Science*, thinks that if phthisis were to **continue to diminish in prevalence** at the same increasing rate of decline for another thirty years it would then have entirely disappeared. The first great drop in its rate took place in the decade of 1840 to 1850, about the same time that attention began to be given to sanitary reform, and especially to land drainage. It then remained scarcely reduced for about seventeen years; but from 1867 to 1894 it had been steadily on the decline. It is in this period that most of the great sanitary work has been carried out in this country. This indicates the direction in which an effort should be made toward stamping out a disease which is said to carry off one-seventh of the human race.

When intending to examine urine under the microscope for pus cells, they will always be rendered more visible by first adding to the specimen a little tincture of guaiac, which colors the cells blue.—*Med. Age.*

A woman having passed an examination in veterinary surgery in England, the Royal College of Veterinary Surgeons refused to grant her a certificate until the courts have decided that it is legal for women to be horse doctors. She is a Scotch woman and a graduate of a Scotch college.

During the administration of ether the most alarming danger signals are sudden pallor of the face, dilatation of the pupils, and darkening of the blood. When the symptoms present themselves the anesthetic should be at once withdrawn, and resuscitation measures instituted.—HEARN. *Dung. Col. Rec.*

The nomenclature of the brain shows how ideas may influence language, says Dr. F. R. Campbell in *The Language of Medicine.* Our anatomical fathers believed that in the encephalon the homologues of all the parts of the body, both male and female, could be found in miniature; and if in your text book on anatomy you turn to the description of the brain you will find arms, brachoa; legs, crura; knees, corpora geniculata; breasts, corpora mammillaria; five stomachs, ventriculi, one of which was anciently called the womb, utriculus; a vulva cerebri; buttocks, nates; testicles, testes; a penis, clava; a vulgar name for the pubic hair, flocculus; a veil, velum interpositum; and a marriage bed, thalamus. With all this procreative apparatus before us we are not surprised to find a union (fornix) and numerous offspring, quadruplets (corpora quadrigemina).

The influence of electricity upon the growth of plants has been the subject of many experiments, and various sensational statements have been made at different times with reference to it. We hear now and then of farmers who claim that by driving strong electric currents through the soil they can raise three or four crops while their old-fashioned neighbors obtain one, but most people possess enough common sense to be able to discount such reports at their proper value. There are, however, a number of considerations which suggest that electricity ought to prove itself capable of assisting the germination and growth of plants in much the same way as light; and by electricity is not meant the electric light, but currents caused to traverse the soil upon which plants are growing.—*N. Y. Med. Times.*

In view of the growing favor of **subcutaneous injections for syphilis,** we give the following formula of Sacaze:

℞	Metallic mercury	20	(℥v.)
	Lanoline	5	(℥iss.)
	Liquid vaseline	35	(℥j. ¼)

Inject subcutaneously from five to seven centigrammes (gr. ¾). Repeat every fifteen days.—*Medical Review of Reviews.*

NEWS AND MISCELLANY.

Expressed in time units, the distance between **Cape May, N. J., and Philadelphia, is 100 Minutes**—measured by the "Century Flyer" over the route of the South Jersey Railroad.

This, and like marked reductions in time to other points, in connection with the superior modern equipment, splendid service, and capable management maintained by the railroad, easily accounts for recent great increase of travel to the health resorts along the southern coast of New Jersey.